

Military Compensation Reform in the Department of the Navy

Michael L. Hansen • Martha E. Koopman



4825 Mark Center Drive • Alexandria, Virginia 22311-1850

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE DEC 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE Military Compensation Reform in the Department of the Navy			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) CNA,4825 Mark Center Drive,Alexandria,VA,22311			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 112	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Approved for distribution:

December 2005

A handwritten signature in black ink, reading "Henry S. Griffis". The signature is written in a cursive style with a large, stylized 'H' and 'G'.

Henry S. Griffis, Director
Workforce, Education and Training Team
Resource Analysis Division

This document represents the best opinion of CNA at the time of issue.
It does not necessarily represent the opinion of the Department of the Navy.

Approved for Public Release; Distribution Unlimited. Specific authority: N00014-05-D-0500.
For copies of this document call: CNA Document Control and Distribution Section at 703-824-2123.

Contents

Summary	1
Background.	1
Approach	1
Findings and recommendations.	2
Introduction	5
Assessment of compensation tools	7
DoN strategic goals and guiding principles for a compensation strategy	8
Goals.	9
Guiding principles	10
Assessments.	11
List of tools assessed	12
Regular Military Compensation	13
Accession and retention bonuses	26
Distribution incentive pays	32
Retirement pay	39
Thrift Savings Plan (TSP)/TSP matching	42
Quality-of-life programs	46
Potential compensation tools	51
Identification of promising compensation tools.	57
Expansion and use of compensation tools in the near term	57
Basic pay.	57
BAH and military housing	59
Health care	61
Retirement pay	64
Sea pay.	65
Selective Reenlistment Bonuses	66
Enlistment Bonuses.	67
Assignment Incentive Pay	68

Thrift Savings Pay (TSP) and TSP matching	68
Voluntary Separation Pay.	69
Summary of near-term recommendations.	70
Balancing compensation tools in the long term	71
Balancing cash and in-kind compensation and benefits	73
Getting the correct mix of cash pays.	80
Summary of long-term recommendations.	84
Appendix A: Major compensation tools available to the DoN .	87
Appendix B: Linking basic pay with time in grade.	89
Appendix C: Matrix of alignment of compensation tools with goals and principles.	91
Appendix D: Summary of near- and long- term recommendations for compensation tools	97
References	99

Summary

Background

Policy-makers and analysts have consistently cited the urgent need to reform the military compensation system. In addition, researchers have pointed out theoretical weaknesses of military compensation, with empirical findings that mirror predictions of the consequences of these weaknesses. In spite of this broad consensus, however, the basic structure of the military compensation system has remained largely unchanged.

Transforming the existing system into a set of compensation tools aligned with the Department of the Navy's (DoN's) goals and objectives will not be easy. The Deputy Assistant Secretary of the Navy, Total Force Transformation (DASN(TFX)), is exploring options for compensation reform to ensure that compensation policies are consistent with the Department's Human Capital Strategy. To support this effort, DASN(TFX) asked CNA to assess the extent to which major, existing compensation tools align with DoN's goals and principles, and to recommend changes that would better align compensation with these goals.

Approach

Our assessment relies on a survey of the military compensation literature and expertise developed in past compensation studies. For each tool on which we focus, we begin by identifying the goal(s) it is intended to help meet and how effective (or ineffective) it is at meeting this goal. Following this discussion, we evaluate the relative advantages and disadvantages of each tool assessed and provide recommendations as to which tools appear to be most promising to expand or for the DoN to begin to use.

This analysis focuses on the following compensation tools: basic pay, the Basic Allowance for Housing (BAH), military housing, Selective Reenlistment Bonuses (SRBs), Enlistment Bonuses (EBs), sea pay, Assignment Incentive Pay (AIP), retirement pay, the Thrift Savings Plan (TSP) and TSP matching, health care, Voluntary Separation Pay (VSP), and quality-based compensation.

Findings and recommendations

Our review of the literature suggests a few general principles that should guide any attempt to reform compensation. First of all, compensation tools are poorly aligned with the goals they are intended to meet if those tools are (a) inflexible, (b) deferred, and/or (c) non-cash remuneration. Conversely, well-aligned compensation tools are those that can be targeted narrowly at the people whose behavior you want to influence and that offer immediate cash compensation in exchange for the desired behavior. Second, the compensation tools that are best aligned with the DoN's goals and principles are either very small components of total compensation, relatively new, or not currently available to the Department.

Using these general principles, our recommendations can be summarized around four themes:

1. With such a large portion of pay as across-the-board compensation, the current system does not have the flexibility to meet DoN's goals in a way that maximizes taxpayers' return on investment. However, some across-the-board pay does provide value and helps DoN achieve some goals. Therefore, reforms should not seek to *eliminate* across-the-board compensation but to *reduce* them as a fraction of total cash compensation. As targeted pays become a larger proportion of total pay, DoN will have greater discretion in using compensation to meet its goals in a way that provides the greatest value.
2. A compensation system that is better aligned with DoN's goals would expand the use of some existing pays, consolidate some others, and begin to develop tools not currently in use. For example, occupational differentials can be set using enlistment

and retention incentive pays; this could be achieved by expanding EBs and SRBs. Both BAH and sea pay could be consolidated into a flexible, targeted pay that compensates Servicemembers for voluntarily choosing to fill certain billets; this could be achieved by a comprehensive use of AIP. Finally, the Department does not have any existing tools that are explicitly designed to reward high performance. A relatively minor change would be to link installment payments of SRBs to rank at the time of payment. More comprehensive reforms include linking basic pay to time in grade rather than length of service and establishing an objective measure of quality on which an explicit pay-for-performance system could be based.

3. There is no need for the DoN to be directly involved in the business of providing family housing, and continuing to do so is not cost-effective. We recommend that it continue to pursue privatization of its housing stock and that it refrain from new construction to replenish this stock. The Department should only provide bachelor housing for its most junior members if the benefits from acculturation and mentorship exceed the additional cost of maintaining barracks.
4. The current system is heavily skewed toward deferred compensation, such as retirement pay, retiree health care, and now TRICARE for Life. The DoN should seek to remove this bias by supporting the repeal of recent enhancements to these programs or, at a minimum, aggressively resisting any further increases. The Department should support comprehensive retirement pay reform by advocating a division of the current benefit into two distinct components. The first would be an old-age pension, with earlier vesting (e.g., at 5 to 10 years of service) and payouts beginning at age 60; the second would be a flexible force management tool such as VSP. More generally, offering cafeteria-style health care and retirement benefits would improve the flexibility of these tools and help maximize their effectiveness.

Introduction

As the Department of the Navy transforms into a more agile force, with different technologies and missions, it will encounter a number of challenges. The Deputy Assistant Secretary of the Navy, Total Force Transformation (DASN(TFX)), is exploring options for compensation reform. This review is intended to develop recommendations that will improve current compensation policies and ensure that these policies are consistent with the DoN's Human Capital Strategy.

This report presents the results of CNA's efforts to assist DASN(TFX) in the process of exploring options for compensation reform. We begin with a brief description of the DoN Strategic Goals and Guiding Principles for its compensation strategy. We then assess some of the major compensation tools available to the DoN, identifying the goals they are intended to help meet, the extent of their success, and the degree to which they are consistent with the guiding principles. Finally, we evaluate the relative advantages and disadvantages of each tool assessed and provide recommendations as to which tools appear to be most promising to expand or for the DoN to begin to use.

The current environment in which the DoN operates is not necessarily representative of a longer term perspective, so we provide both near- and long-term recommendations. In addition, we assess the potential difficulty of implementing any changes to the compensation system. While some adjustments can be made at the discretion of the DoN, others will require inter-Service cooperation and/or congressional approval and may not be practical in the short run.

Since this study was done for DASN, it addresses the concerns of the Department of the Navy, that is, both the Navy (USN) and the Marine Corps (USMC). In general, all four military Services have the same compensation tools available to them, but some tools allow the Service Secretaries discretion in how they are applied. Within the tools we assess, we will try to point out if there are cases when the

Department might use them differently for USN and USMC. (Sometimes the research we cite was done specifically for either the Navy or the Marine Corps. In these cases, we are careful to use the terms *Navy* or *Marine Corps* rather than DoN.)

Assessment of compensation tools

Policy-makers and analysts—from the first Quadrennial Review of Military Compensation (QRMC) in 1967, through the President’s Commission on Military Compensation in 1978, to the 9th QRMC in 2002—have consistently cited urgent needs to reform the military compensation system. In addition, researchers have pointed out theoretical weaknesses of military compensation and have verified these theories with empirical findings.

In spite of this broad consensus on shortcomings and repeated calls for reform, however, the basic structure of the military compensation system has not changed.¹ The largest component of military pay is basic pay, which varies by rank and length of service, with separate tables for officers, warrant officers, and enlisted. The next largest are the Basic Allowances for Housing (BAH) and for Subsistence (BAS), which vary by rank, length of service, marital status, and location. The final large components are retirement pay and the health care benefit. These components, plus social security payments, accounted for 87 percent of the DoN military personnel budget in FY 2004.²

The remaining 13 percent includes a complex collection of enlistment and continuation bonuses, special and incentive pays, allowances, quality-of-life programs, and other compensation tools. Most analysts agree that the military compensation system contains too complicated an array of special pays and benefits. Such issues as the tax advantage of allowances, the proliferation of relatively small special and incentive pays, and the lack of visibility of benefit costs make

1. Reference [1] describes the basic structure of the military compensation system and the major compensation tools.
2. The 87-percent figure is based on appropriations in the MilPers account from the FY 2006 Presidential Budget. We used the 2004 numbers, which are the most recent actual numbers available. The percentage combines Navy and Marine Corps, but it is the same for each Service.

it hard for Servicemembers to put an accurate value on their total compensation. This can hurt the military if people perceive their earnings as being lower than their actual total compensation cost. In addition, it's costly to administer such a complex pay system, and flexibility is limited because many pays are set by law and require joint Service and/or congressional approval to change.

DoN strategic goals and guiding principles for a compensation strategy

The Assistant Secretary of the Navy, Manpower and Reserve Affairs (ASN(M&RA)), issued the DoN Human Capital Strategy in June 2004.³ This strategy included seven objectives for creating a well-performing, efficient, balanced, and effective human capital system. The seven goals are to (1) inspire, (2) develop, (3) compensate, (4) recruit and access, (5) manage, (6) shape the force, and (7) separate or retire.

In 2005, ASN(M&RA) and DASN(TFX) formed the Compensation Team for the Force Management Oversight Council (FMOC). One of the tasks assigned to the Compensation Team was to draft guiding principles and strategic goals that are specific to compensation policy but are also consistent with the overall Human Capital Strategy goals. The goals and principles listed in the pages that follow are the result of this process. Their consistency with strategic objectives 1, 2, and 4 through 7 from the DoN Human Capital Strategy of June 2004 is obvious. Goal 3 of the Human Capital Strategy, to compensate the force adequately, is behind the guiding principles of an All-Volunteer Force and a flexible and responsive compensation system.

-
3. The Naval Personnel Task Force, convened in 2000 and sponsored by ASN(M&RA), surveyed many past initiatives and research. This task force also developed a strategic approach for moving forward into the 21st century in the area of compensation and other aspects of human resource management [2]. The most recent QRMC special focus was a strategic review to assess the effectiveness of current military compensation and benefits in recruiting and retaining a high-quality force in light of changing demographics, a dynamic economy, and the new military strategy [3].

In the next two subsections, we repeat the DoN's goals and guiding principles for a military compensation strategy. These are taken from a document that was drafted by the Compensation Team and approved by the FMOC. In this document, we refer to these goals and principles frequently in assessing how well various compensation tools are aligned with them. Some of the goals and principles have long names, so we use abbreviations, which are introduced in parentheses after the full name (both in italics).

Goals⁴

The DoN's goal is to maintain and sustain the workforce it needs to be successful in accomplishing its naval mission. It recognizes that every member of the force is unique and that military service is a profession steeped in its own ethos, traditions, expertise, and expectations. Using a combination of tangible and intangible benefits, the Department's policies will accomplish the following effectively and cost-efficiently:

- *Recruit* the proper number of high-quality people with the skills required for the terms of service needed.
- *Retain* the proper number of high-performing personnel with the right skills and experience for the terms of service needed.
- *Inspire Attainment of the Highest Standard of Performance (Attain High Performance)*, including motivating high levels of individual and collective performance, productivity, and contributions needed for the naval Services to successfully accomplish their missions.
- *Reward Exceptional Performance* through appropriate means, both monetary and nonmonetary.

4. In the sections that assess how well compensation tools align with these goals and principles, we use the terminology developed by the FMOC. In our literature reviews, however, it is necessary to use terminology that is consistent with the existing literature. Thus, in these sections, we retain the use of traditional academic terms, such as *cost-effective*.

- *Assign* the best people, with the required skills and experience, to perform needed work, where and when needed.
- *Motivate Professional Development (Motivate Development)* that fosters a culture of professional interest and growth so that people willingly acquire and use the skills, knowledge, and abilities required for specific jobs.
- *Facilitate Career Transitions (Facilitate Transitions)* at appropriate times between active, reserve, civilian, retired, and volunteer status in response to workforce requirements. The compensation system should allow and encourage people to pursue rewarding work/life opportunities throughout their careers.

Guiding principles

To support the DoN's compensation strategy, the following principles serve to guide policy decisions and implementation at every level.

- *All Volunteer*: The Department's compensation policies support an all-volunteer workforce; members perceive their compensation to be "fair and equitable."
- *Flexible, Responsive (Flexible)*: The Department must be able to quickly and effectively change compensation policies to respond to changing market conditions and Service requirements in accordance with the Human Capital Strategy. Acknowledging the need for coherent and consistent policies within the Department of Defense (DoD), each of the Services must have the discretionary authority to carry out its strategies and quickly address emerging problems and issues.
- *Strategic Best Value (Best Value)*: The Department's compensation policies must be aligned with other elements of their larger human capital strategy to produce the highest value, maximizing mission contribution and minimizing cost. Targeted compensation can provide cost-effective solutions to address Service-specific needs.
- *Support Achievement of Strategic Objectives and Outcomes (Support Objectives)*: Rational compensation policies support a hierarchy of strategic objectives and outcomes for successfully competing

for talent, encouraging and rewarding performance, and recognizing contribution to mission.

Assessments

In this subsection, we assess a selected subset of the major compensation tools available to the DoN.⁵ We chose the tools to assess based on the following criteria:

- Whether there is a significant body of literature about them.
- Whether they are a large enough component of total compensation to make a significant difference in accomplishing the goals of a compensation system.
- Whether existing pays align well with various DoN goals and principles. We included a mix of existing pays that do and do not align well with such goals and principles, as well as some proposed innovations that may align more closely.

Our choice of tools may seem weighted toward active duty vs. Reserves, Navy vs. Marines, or enlisted vs. officers. In many cases, this is because most of the empirical literature focuses on active-duty enlisted Navy. In general, however, our conclusions and recommendations can be extended to similar pays covering other communities. For example, continuation bonuses for officers are aligned with the goals and principles in much the same ways as the enlisted Selective Reenlistment Bonuses (SRBs). Similarly, Reserve affiliation bonuses would have similar alignments to active-duty enlistment bonuses (EBs) for new recruits or SRBs for transfers from active duty.

There are some differences in assessments for the Navy and the Marines because the Marine Corps is a younger Service with a different mission, technology, and culture. Most of the compensation tools will serve both branches equally well, but there are a few cases in which a tool will work better for one Service than the other. For example, since the USMC has a younger enlisted force, deferred forms of

5. For a complete list of the major compensation tools available to the DoN, see appendix A.

compensation, such as retirement pay and retiree health care, will be less effective. In our assessments and recommendations, we will note the significant differences in how well a tool meets the goals and principles for the two Services.

For each tool, we will discuss what problem(s) it is supposed to solve and how effective or ineffective it is at solving the problem. We also indicate how well the tool aligns with the DoN's Compensation Strategic Goals and Guiding Principles. Our assessment relies on a survey of the military compensation literature and expertise developed in past compensation studies.

List of tools assessed⁶

We assessed the following tools:

- Regular Military Compensation
 - Basic pay
 - Basic Allowance for Housing (BAH)
 - Military housing (Quality-of-Life Programs section)
- Accession and Retention Bonuses
 - Selective Reenlistment Bonus (SRB)
 - Enlistment Bonus (EB)
- Special and Incentive Pays
 - Sea pay
 - Assignment Incentive Pay (AIP)
- Retiree Compensation
 - Retirement pay
 - Thrift Savings Plan (TSP)

6. Reference [1] contains an excellent history and description of each of the existing pays. For an online version of [1], see http://www.loc.gov/rr/frd/pdf-files/Military_Comp.pdf.

- TSP matching (Other Existing Compensation Tools section)
- Quality-of-Life Programs
 - Health care
- Other Potential Compensation Tools
 - Voluntary Separation Pay (VSP)
 - Quality-based compensation.

Regular Military Compensation

Basic pay

Basic pay is the principal form of compensation provided to people in exchange for their military service. While the terminology used to describe it has varied over the years, use of basic pay as compensation for service in the U.S. military can be traced back as far as 1790 [1]. Currently, the level of basic pay differs for enlisted personnel, warrant officers, and commissioned officers; it increases with rank, and it increases after Servicemembers achieve specific lengths of service in the military. Pay tables are the same for Army, Navy, Air Force, and Marine Corps personnel.⁷ Two people with the same rank and years of service will receive identical basic pay.

Basic pay aligns well with two of the Strategic Goals: *Recruit* and *Retain*. All theoretical models of the enlistment process predict that, *ceteris paribus* (with other things equal), higher levels of basic pay will lead to an increase in the number of people who volunteer to serve. The empirical literature consistently finds that increases in relative military pay—that is, increases in basic pay that are greater than increases in civilian earnings opportunities (or, similarly, reductions in civilian earnings opportunities)—raise the willingness of people to serve.⁸

7. Historically, different levels of basic pay were provided to members of different Services [1].

8. For a comprehensive summary of the theoretical and empirical literature, see [4].

Theoretical models of the retention decision generate a similar prediction of the effect of increases in basic pay on the retention decisions of Servicemembers [5]. In general, the empirical literature finds a large effect of increases in relative military pay on the reenlistment decisions of Servicemembers nearing the expiration of their initial enlistment contract.⁹ Estimates of the efficacy of basic pay on the retention decisions of careerists are smaller, but most researchers attribute small observed effects to statistical difficulties in estimating a precise relationship [5].

One could argue that the current structure of basic pay helps achieve two additional Strategic Goals, to *Attain High Performance* and *Facilitate Transitions* from service. Since the level of basic pay depends, in part, on a person's rank, there is an incentive to attain a high level of individual performance and productivity [7]. Furthermore, for each rank, increases in basic pay do not increase indefinitely with length of service. At some point, Servicemembers reach a terminal level of basic pay, with any further increase restricted to annual congressional adjustments to the pay tables. This lack of additional reward to service reduces, in theory, the attractiveness of service and consequently increases the likelihood that a person will choose to separate [8]. The efficacy of basic pay to *Attain High Performance* and *Facilitate Transitions* depends on the increase in basic pay associated with promotion and the point at which basic pay ceases to rise with length of service.

Basic pay also aligns with each of the DoN's Guiding Principles, although it does so with varying levels of success. First, basic pay certainly recognizes the *All-Volunteer* nature of service. Frequent examination and adjustment of basic pay for junior personnel reflects the understanding that potential recruits have the choice of military service or alternative employment opportunities. If basic pay is not high enough to convince enough people to choose military service, it is adjusted. Similarly, at the expiration of a commitment to service, the Servicemember often has a choice to continue to serve or to seek employment outside the military. If basic pay is perceived to be too low to encourage sufficient levels of retention, it is adjusted [3]. Use

9. For a review of this literature, see [6].

of basic pay as a mechanism by which to systematically compensate people for service reflects the common practice of paying wages and salaries to employees in the private sector.

Basic pay is *Flexible* in some, but a limited number of, respects. The ability to vary basic pay for enlisted personnel, warrant officers, and commissioned officers, for different ranks, and by years of service provides policy-makers with a number of ways in which basic pay can be adjusted to meet its Strategic Goals. If recruiting challenges are different in the enlisted and officer ranks, entry-level basic pay can be adjusted differently for one type of Servicemember and not for another. Similarly, policy-makers can examine retention at different levels of experience and assess the extent to which there will be difficulty in meeting requirements at different ranks. If there are shortages in some ranks and not others, increases in basic pay can be targeted by rank.¹⁰

In other respects, however, the *Flexibility* of basic pay is limited. The current structure of basic pay is such that, for a given rank and length of service, basic pay is equal for members in different Services. For example, if the Army and Marine Corps have recruiting challenges, while the Navy and Air Force do not, basic pay cannot rise faster for the Army and Marine Corps than it does for the other Services. Similarly, for a given rank and length of service, basic pay is equal for people in different occupations.¹¹ If different occupations have different recruiting and retention challenges, basic pay does not have the precision to target the skill groups experiencing difficulty. Again, this lack of flexibility is due to the structure of basic pay imposed by Congress; we do not believe that it is a flaw inherent in basic pay.

Because of this lack of flexibility, basic pay is not as good a *Strategic Best Value* as it otherwise would be. Cash compensation is more cost-effective than some other forms of remuneration since it provides

10. Reference [3] is a recent example of this type of recommendation.

11. To the extent that speed of promotion varies by occupation, average levels of basic pay at a given length of service will differ by occupation. We argue, however, that this reflects the flexibility of the military promotion system and not basic pay itself. See [9].

immediate payment for service that people can use to purchase goods and services that they desire. It is fungible, and providing cash compensation relieves policy-makers of the burden of determining what Servicemembers want to purchase or consume.

Responding to recruiting and retention challenges with increases in basic pay, however, is cost-effective only if these challenges are being experienced by all Services and in all occupations [7].¹² Returning to the recruiting example, increasing basic pay to combat a recruiting problem in the Army and Marine Corps will also increase basic pay for those in the Navy and Air Force. These increases in compensation for Sailors and Airmen are not cost-effective since they do not further the Strategic Goals in these Services. Increases in basic pay could be cost-effective, however, if they are in response to a manning problem that affects all Services.

Basic Allowance for Housing (BAH) and housing programs

Every Servicemember receives either military housing or BAH as part of his or her compensation. About 33 percent of members with dependents and 60 percent of members without dependents live in military housing [10]. For members who receive allowances, the amount is substantial, roughly comparable to 30 to 40 percent of basic pay for the typical enlisted Servicemember [11]. As of 2005, average out-of-pocket expenses for members getting BAH have been reduced to zero, so the value of allowances and onbase housing are more nearly equivalent.¹³

12. Examples would include a general decline in the propensity of youth to consider military service and improvements in the civilian economy.

13. People living on base get free rent and utilities. In 2000, the DoD undertook a major initiative to eliminate average out-of-pocket costs for off-base housing in the United States. At that time, Servicemembers getting housing allowances paid, on average, almost 20 percent of out-of-pocket costs. This percentage has been reduced each year with the goal of eliminating average out-of-pocket costs entirely in 2005. Current information on BAH can be found on the Military Compensation web site maintained by the Office of the Under Secretary of Defense for Personnel and Readiness: <http://www.dod.mil/militarypay/index.html>.

Whether in the form of an allowance or an in-kind benefit, housing is a major portion of total compensation. As such a large and visible portion of compensation, either BAH or housing plays an important role in the ability of the DoN to *Recruit* and *Retain* members of an *All-Volunteer Force*. Both programs, however, have features that are unusual compared with other components of military pay or to pay outside the military. In addition, contrasting BAH with the direct provision of housing sheds some light on the overall issue of noncash, or in-kind, compensation.

Basic Allowance for Housing. BAH depends on location, paygrade, and whether a Servicemember has dependents. BAH rates are set by surveying the cost of rental properties in each geographic location. The rates are established in such a way that members in each paygrade, independent of location, can afford about the same type of housing [1]. The paygrade aspect of BAH simply reinforces the basic pay table, so, in many respects, BAH is simply a cash pay that aligns with the goals and principles in the same way as basic pay. As such, it can help to *Attain High Performance* by increasing with promotions. We will discuss in more detail, however, three unique aspects of BAH and how they either fulfill or work against the Strategic Goals and Guiding Principles:

1. The dependency differential: Servicemembers with dependents receive higher BAH payments
2. The location differential: essentially a cost-of-living allowance that varies based on local housing costs
3. The tax-free status of BAH.

Giving higher pay to employees who have dependents is an aspect of the compensation system that is unique to the military. Other employers do not explicitly compensate employees in this way [2, 11]. The difference between the with- and without-dependents BAH rate is about 20 to 30 percent, although it varies by paygrade [11]. This system apparently reflects an attitude of paternalism or stewardship of the military toward its personnel and their families. Since military service is “more than just a job,” the Services may feel an obligation to ensure that military families are housed adequately. Also, deployed

Servicemembers may feel more comfortable knowing that their families are cared for; this would increase readiness [12, 13].

Whatever the reason behind the dependency differential, the result is that, *ceteris paribus*, people with dependents are more likely to be attracted to and stay in the military. Virtually every empirical study of accession and retention behavior examines differences by marital and dependency status, and most researchers have found significant, positive differences.¹⁴ Some researchers even argue that the dependency differential provides an incentive for single members in the military to marry and have dependents [11, 12]. It is also possible, however, that higher relative compensation simply makes military service more attractive to those with dependents, thereby causing the composition of the force to be disproportionately married or with dependents.

Regardless of the explanation, it is true that Servicemembers are more likely to be married than their civilian counterparts [14]. This generates additional costs since larger families will have higher benefit and other costs. Not all of these costs appear in the Military Personnel—or even DoD—budgets, so they are not transparent when trying to construct the cost of a Servicemember. Reference [15], for example, points out that Servicemembers with school children will incur higher Impact Aid payments from the Department of Education to local schools or, if they attend DoD schools, there will be higher Operations and Maintenance costs for running the military schools.¹⁵

In other words, the true cost of the dependency differential is greater than the differential in BAH and housing costs. In addition, a force

14. An implication of this result is that, if the Services had fewer married Servicemembers, retention rates would be lower than they are now. Improving retention of unmarried Servicemembers would generate an additional cost. To our knowledge, no empirical work has been done that compares the size of the dependency differential with the increase in expenditures necessary to improve retention of unmarried Servicemembers.

15. See [16] for a discussion of DoD and local schools and their effect on Servicemembers' satisfaction.

with an artificially higher proportion of married personnel may be less agile if single employees are more likely to accept compensation in return for long and unpredictable hours, frequent moves, and potentially hazardous duty.

In terms of alignments with goals and principles, BAH skews the *Recruiting* and *Retaining* goals toward people with dependents. Its effect on *Attaining High Performance* is not clear. To the extent that the stewardship role of the military is important to all Servicemembers, or that well-housed families increase readiness among deployed members with families, targeting higher BAH payments to members with dependents might help to *Attain High Performance*. It is equally likely, however, that the dependency differential might cause feelings of unequal treatment among Servicemembers without dependents; this could lower the *Performance* of these members. To our knowledge, no empirical work has been done that examines these effects.

Turning to the location differential, tying BAH to local housing costs can help *Assign* people when members are considering moves to high-cost areas. There are also special allowances for overseas moves and for geographic bachelors. On one hand, the way BAH is determined and adjusted to reflect changes in local housing prices is the primary *Flexibility* in the pay. On the other hand, BAH is not flexible enough to attract people to locations where they are particularly needed when the need does not depend on the price of housing.

Another unique feature of the housing allowance, as well as the Basic Allowance for Subsistence (BAS), is that it is not taxed. The tax-free status is presumably granted because, although BAH and BAS are cash pays, they are thought of as a substitute for a noncash benefit, and noncash benefits are not taxed. In other words, because those who receive onbase housing are not taxed on the value of their housing, it does not seem fair to tax those who receive housing allowances instead.

The tax-free nature of BAH and BAS does make manpower cheaper from the point of view of the DoD. It allows DoD to offer an additional benefit (the tax advantage) at zero cost to the military, but ultimately this cost is just transferred to another party—the taxpayer.

Thus, although the tax advantage may appear to provide *Best Value*, it is really just transferring costs from one payer to another.

Also, there is an inefficiency in providing a tax-free allowance because it obscures the total cost of personnel. The cost of military personnel is understated relative to the cost of other inputs to military readiness, and this decreases the likelihood that optimal resource allocation decisions will be made. Although it does not play a direct role in the compensation system's strategic goals and principles, the BAH/BAS tax advantage makes the full cost of manpower less transparent and thus skews resource allocation decisions [15].

Since it is difficult to precisely estimate a person's tax advantage, it is likely that some Servicemembers do not appreciate the full value of the compensation package.¹⁶ Just as the total cost of manpower may not be transparent to decision-makers, the value of all aspects of their compensation may not be clear to the people receiving it. Reference [15] suggests better education efforts to help Servicemembers evaluate their compensation package, especially such elements as deferred benefits and the tax advantage. Alternatively, basic pay may be more effective for the *Recruit* and *Retain* goals because it makes the full value of compensation more transparent than BAH.

Onbase housing. People who live in onbase housing can be divided into two groups: bachelors who are required to live in Bachelor's Quarters (BQs) and families who choose to live in family housing rather than receive BAH. For bachelors, rules for who must live on base differ somewhat by Service and have become more lenient in recent years. At a minimum, however, all enlisted bachelors in their first term of service or in paygrade E-4 and below must live in BQs.¹⁷ Families face

16. According to [17], the state tax advantage is especially hard to evaluate and may make it difficult for someone to correctly forecast and appreciate the value of military relative to equivalent civilian compensation.

17. By bachelors, we mean men and women who do not have dependents. Personnel in lower paygrades can receive BAH if BQ space is below standards. Along with more lenient rules for living off base, BQs are in the process of being upgraded from barracks to apartments. Therefore, any discussions about discontent among bachelors with requirements to live on base may have lessened in recent years, or may be lessening soon.

no obligation to live on base and, especially until out-of-pocket costs with BAH were eliminated in 2005, often find it desirable—that is, the larger the family, the more desirable.¹⁸ Thus, in terms of how onbase housing aligns with compensation goals and principles, it is useful to discuss some aspects separately for bachelors and families.

Most new recruits enter the Service as bachelors. As bachelors, they will live in BQs, which means they will receive free room and board. As a large part of their total compensation, it is aligned with the *Recruit* goal. Substantial evidence, however, shows that junior personnel do not like living in BQs, so being required to live in BQs may discourage some people from joining the Services and others from reenlisting later on, thus detracting from the *Recruit* and *Retain* goals [10, 19].

Some of these bachelors might choose to live in BQs even if not required, but surveys indicate that only about 20 percent of all bachelors, and less than 10 percent of E-1s through E-4s, want to live in military housing [19].¹⁹ One explanation is that, while even the upgraded housing standard for E-4s requires them to share two-bedroom, dormitory-style accommodations, similar civilians are more likely to have their own apartments [10]. If morale is low enough because of negative comparisons between the barracks and how they could live as civilians, it interferes with bachelors *Attaining High Performance*. In addition, onbase housing has been shown to cost more than housing Servicemembers on the economy. Onbase housing requirements, however, help with of the acculturation and stewardship of the youngest Servicemembers. To the extent that acculturation and stewardship improve readiness of these people, onbase housing helps members *Attain High Performance*. The Services have been willing to accept the dissatisfaction of some Servicemembers, as

18. See [18] for a useful overview and assessment of family housing benefits.

19. A small number of bachelors in onbase housing are in paygrades high enough that they could elect BAH. This number must be small because, DoD wide, 90 percent of all enlisted bachelors are in grades E-1 through E-5, and there are only 8,000 bachelors in grades E-7 through E-9 [10].

well as the higher cost of onbase housing, in order to meet this latter objective.

For Servicemembers with families, the size and type of house to which they are entitled is based on paygrade and family size. DoD family housing policy allows one bedroom per dependent in onbase housing. The literature demonstrates that, for large families, this provides larger houses than they could afford to rent with BAH. Thus, there are often waiting lists for the larger family housing units, and families in those units have more bedrooms per child than similar civilian families [10]. The relatively inexpensive provision of onbase housing for large families provides a disproportionate incentive to *Retain* this group. Since the size and quality of housing also improves by paygrade, onbase housing, like BAH, reinforces the *Attain High Performance* incentive of basic pay.

Military housing has less *Flexibility* as an *Assignment* tool because the stock of military housing is fixed. It will be especially ineffective as the DoN becomes a more agile force and adapts to a changing, transforming environment. In general, it does not have as much *Flexibility* as BAH or other cash pays because it is a noncash benefit. This is discussed further in the next section.

The relative demand for onbase vs. private-sector housing introduces a possible distortion because allowances have covered only a fraction of housing costs, whereas onbase housing has no out-of-pocket costs. The problem is that the different subsidy levels given in the past for onbase and offbase housing encouraged Servicemembers to select the onbase option.²⁰ For both family housing and bachelor housing, the literature shows that it is the different subsidies, *not* how people truly value the housing, that have created waiting lists [20, 21]. At the same time, it costs the military far more to house either families or bachelors on base than on the economy, and bear in mind that personnel value onbase housing far less than the cost to provide it. The need for additional base housing, therefore, is overstated. In fact, reference [20] argues that Navy families would be better off if the Navy

20. As discussed above, DoD is working on an initiative to eliminate out-of-pocket housing costs for members electing BAH by 2005.

stopped funding base housing altogether and used the savings to raise BAH levels to cover more out-of-pocket costs for private-sector housing.²¹ This approach would also free DoD from the administrative burden of managing base housing and would allow it to concentrate on its core functions.

Another study with an entirely different approach [22] confirms that the cost of providing military housing outweighs any benefit. These researchers used survey data on use of and satisfaction with quality-of-life programs to estimate the effect of these programs on retention. They then compared the value of the increased retention with the programs' costs. The results for Navy enlisted showed that, relative to living in civilian housing, shipboard berthing had a negative effect on continuation, living in BQs made no statistical difference, and living in family housing had a positive effect. However, given the size of the continuation effect, the small fraction of people living in family housing, and the high cost of military housing, the cost was 1.4 times greater than the benefit of the program for marginal changes.

The implication of these studies is that, if false price signals induce people to prefer onbase housing, the military may end up in a business that is not part of its primary mission and for which it is not suited. The military's primary mission is warfighting, not operating a complex monopoly enterprise to supply housing. Operating this enterprise would not support the objectives of a compensation system, and many studies have shown that the military is not a *Best Value* provider of housing. This may improve, however, as DoD is engaging in more private-public ventures (PPVs) to increase the quality and availability of military quarters and make them *Better Values* [10].

In-kind compensation and benefits. Contrasting the Basic Allowance for Housing with the direct provision of housing allows us to examine the overall issue of in-kind compensation.²² The 9th QRMC estimated that DoD as a whole paid about 70 percent of military compensation in cash pay (RMC, accession and retention bonuses, special and

21. Although housing prices in the private sector have risen since [20] was published, the basic principle still holds because what DoD could sell its assets for has risen by the same amount.

incentive pays, and other allowances), while the remaining 30 percent consisted of in-kind compensation and benefits [3].²³ By definition, in-kind benefits restrict the consumption choices made by recipients; the value of the benefit depends on what the recipient prefers to consume. Onbase recreational facilities may be valued highly by a junior enlisted member living nearby but are literally worthless to someone electing BAH and working at an outlying facility.

While cash pay has a number of advantages over in-kind compensation or benefits, there are also circumstances under which organizations are better off using in-kind compensation. In the case of military housing, these benefits help *Attain High Performance* through higher readiness, and include the following:

- Having personnel live together on base furthers the “stewardship” goal of the military [13]. As we have discussed, this is especially relevant for providing quarters for junior personnel when they are being acculturated into the military and when their superiors feel responsible for their behavior.
- Providing housing in kind may also attract into the military the type of recruit who would like to live on base. To the extent that this is a good “screen” for Servicemembers who will contribute well to the military mission, in-kind housing may be preferable to cash pay.

Offsetting these positive features, providing housing in kind often conflicts with the guiding principles that compensation should be *Flexible* and the *Best Value*. In addition, there are some other objectives that are not supported as well by onbase housing:

-
22. See [12] for an in-depth examination of in-kind compensation, strategies for determining whether cash or in-kind compensation is more effective, and how to deliver in-kind compensation more efficiently.
 23. This ignores costs paid by other agencies, such as veterans’ health care, disability insurance and home mortgage assistance, and payments to local schools by the Department of Education. If these costs were included, the share of benefits in total personnel costs would be well above 30 percent [12].

- In-kind benefits, such as base housing, tend not to be *Flexible*. That is, they cannot be adapted to changing labor markets or new military missions. Having fixed stocks of housing on existing bases can hamper moving toward an expeditionary force or a greater Total Force concept.
- Some of the costs fall outside the military personnel budget and are not included in budgetary decisions. Department of Education costs, sunk costs for land, and so on, are not always accounted for; then, DoD makes tradeoffs between personnel and other resources incorrectly. This misallocation of resources does not provide taxpayers with *Best Value*.
- It is difficult for people to compare military and civilian earnings. Due to the complexity of all the in-kind compensation and benefits, many people won't know the cost of all their benefits. Furthermore, the actual cost is not even relevant if they are being provided with benefits that they value less than the equivalent amount of cash. When the total value of compensation is not transparent, it is harder to *Recruit* and *Retain* people [15].
- In-kind benefits are often not targeted to the people the military most wants to attract and retain or to meet other goals. Military housing benefits are now skewed toward retaining larger families in higher ranks. Also, housing stocks are fixed at certain bases and cannot be adapted to changing circumstances. This makes the tool not *Best Value* and less *Flexible*.
- When DoD monopolies supply in-kind benefits, it leads to high administrative costs and detracts from the core defense missions. Diverting DoD in this way does not *Support the Objectives* of a compensation system. Also, these organizations are inefficient because they are protected from competition. In the past, military housing was not *Best Value* compared with using allowances to buy equivalent housing on the economy.

Accession and retention bonuses

Selective Reenlistment Bonus (enlisted)

The Selective Reenlistment Bonus (SRB) is intended to offset one of the limitations of basic pay, allowing the Services to offer different levels of compensation to people with different skills. Authorities for payment of reenlistment bonuses have existed almost as long as authorities for basic pay; however, it was not until 1965 that the Services began to target these payments to people in skills with retention problems [1]. As the name of the compensation tool implies, the SRB is offered to members at the expiration of their obligated service who agree to reenlist for an additional term of service. In addition, these personnel must meet certain eligibility criteria *and* agree to reenlist for at least another 3 years of service.

SRBs are computed by multiplying a person's "skill criticality level" (possibly zero) by monthly basic pay, and multiplying that product by the number of additional years of obligated service [1]. The skill criticality level allows the SRB to vary by occupation; each Service has the discretion to set these levels as they see fit, subject to an annual constraint on the total amount of reenlistment bonus payments.

In the Navy, SRBs are paid to personnel over the duration of the reenlistment contract, with 50 percent paid immediately at the time of reenlistment (*lump-sum payment*) and the remainder paid out in annual payments over the period of reenlistment (*installment payments*). In contrast, the Marine Corps pays out SRBs in a single, lump-sum payment.

In theory, SRBs should support the Strategic Goal of *Recruiting* since they represent future compensation for potential recruits if they choose to serve in certain skills. To our knowledge, however, there is no empirical work that examines the extent to which SRBs actually affect the ability of the Services to recruit individuals. Since policy-makers view the EB as a *Recruiting* tool and the SRB as a *Retention* tool, it is likely that they view any improvement in recruiting due to SRBs as a secondary benefit. Some officer communities, notably health care professions and nuclear officers, use enlistment and continuation bonuses more seamlessly to provide a continuously

higher career earnings stream that will both attract new entrants and retain current Servicemembers.

Theoretical models and empirical findings both suggest that SRBs are well aligned with the Strategic Goal of *Retention*. In theory, an SRB should have the same effect on retention as a commensurate amount of basic pay; both tools represent cash compensation to the Servicemember and, *ceteris paribus*, higher levels of cash compensation will lead to an increase in the number of people willing to reenlist.²⁴ In general, the empirical literature finds a positive relationship between SRBs and reenlistment, with different responsiveness to bonuses at different levels of military experience [5 and 6]. However, there is also evidence that higher SRBs at one decision point reduce retention at the next decision point [25, 26]. This is consistent with the theoretical model: since higher bonuses encourage some people who would have separated to reenlist, *ceteris paribus*, these people have a relatively low preference for military service. For the Navy, analysis also concludes that ratings with relatively large manning shortfalls also have high SRBs; this suggests that the Navy has a good sense of where its manning problems lie and that it attempts to alleviate these problems by providing compensation to people in these skills [9].

We also wish to stress that, despite the use of the term *bonus*, the SRB does not align with the Strategic Goal of *Attain High Performance*. Private-sector firms use bonuses for existing employees to reward performance that has already occurred. Bonuses act as an incentive to increase performance since higher productivity increases the likelihood of being rewarded with a bonus. In contrast, the Services use SRBs to institute variance in compensation by occupation; any effect of bonuses on performance is unintended and coincidental.²⁵

24. These theoretical models assume that personnel combine all elements of military compensation into a single measure of remuneration and compare it to civilian earnings opportunities when deciding to remain in the military. For a seminal paper demonstrating the usefulness of this approach, see [23]. Also see [24].

25. As Walter Oi notes in reference [27], a reenlistment bonus “is a payment to persuade a soldier to be present; it does not reward an individual for a job well done.”

SRBs also align with each of the DoN's Guiding Principles. First, the SRB recognizes the *voluntary nature of service*, in a similar fashion as basic pay. At the expiration of a member's service obligation, he or she often has a choice to continue to serve or to seek employment outside the military. In fact, SRBs are more aligned with this principle than basic pay since they explicitly recognize that different people have different opportunities. Offering levels of compensation commensurate with the degree of competition for that talent is a strong signal that the military understands the voluntary nature of service.

The inherent design of the SRB also gives it some *flexibility*. A comparison of bonus levels within the same skill across the Services, of levels across skills at a given point in time, and of levels within the same skill over time all reveal a substantive amount of variation in the use and magnitude of the SRB. There is some evidence, however, that the Services could make greater use of this tool. While the SRB introduces some variation in military compensation by skill, SRB payments still represent an extremely small percentage of total compensation.²⁶ In technical skills, there is evidence that military pay differentials fall far short of those observed in the private sector [9]. In other words, while the SRB is designed to be flexible, the Services have not maximized this flexibility.

SRBs are also considered to be relatively *Best Value*, especially when compared with basic pay. Increases in reenlistment bonuses for a skill that has a retention problem can reduce manning shortages in that skill without increasing compensation for personnel in skills without shortages. However, recent research has suggested that, in the current recruiting and retention environment, even SRBs are not a cost-effective way to raise reenlistment further. Some researchers have concluded that higher SRBs are only cost-effective for a small group of highly technical ratings [28]. More recently, some have argued that the number of ratings for which higher SRBs are cost-effective is even smaller [29].

Further increases are no longer cost-effective due to the relatively high levels of retention. Within a skill, it is very difficult to identify the

26. See figures 3-1 and 3-2 of reference [3].

people who require higher compensation to prevent them from leaving service and to separate them from those who would be willing to reenlist without further increases in compensation.²⁷ Consequently, the Services must pay *all* qualified personnel the same bonus. Even though increases in SRBs encourage new reenlistments, they also increase compensation to people who do not require it to stay. This reduces the cost-effectiveness of the SRB. When reenlistment levels are already high, the number of Servicemembers to whom “unnecessary” increases in compensation are paid is also high.²⁸

Finally, the manner in which SRBs are paid to Sailors also decreases their cost-effectiveness. Most people have a preference for immediate (rather than deferred) compensation; the literature demonstrates that this is true for military personnel as well.²⁹ This implies that Servicemembers would be willing to accept lower compensation if paid today than if they are paid in the future.³⁰ Fifty percent of the SRB, however, is distributed in the form of installment payments, up to several years after the reenlistment decision. Altering the structure of the SRB to resemble the Marine Corps’ policy (i.e., paid in a lump sum at the time of the reenlistment decision) would increase its cost-effectiveness.

Enlistment Bonus (enlisted)

Like the SRB, the Enlistment Bonus (EB) is intended to offset one of the limitations of basic pay, allowing the Services to offer compensation that differs by skill. EBs were used from the time of the Revolutionary War until shortly after the Civil War; they were reinstituted when the All-Volunteer Force was created [1]. As the name of the

27. Even if the Services could do so, withholding SRB payments from those who would be willing to stay without the bonus could violate the *All-Volunteer* principle if it was not considered “fair and equitable.”

28. As an example, if 99 of 100 people are willing to reenlist without a bonus, offering a bonus so that the 100th person agrees to reenlist also results in offering the same bonus to the 99 who would have been willing to stay anyway.

29. For example, see [30].

30. For an excellent summary of the literature, see [31].

compensation tool implies, the EB is offered to those who agree to enlist in a skill that the Services consider to be “critical.” Each Service has the discretion to set these bonuses as it sees fit, subject to an annual constraint on the total amount of enlistment bonus payments. A significant difference between the EB and the SRB is that the SRB is paid to personnel *with* skills in areas judged to be critical, while the EB is essentially paid to people *to acquire* skills in areas judged to be critical.

Since 1985, the Navy has used *targeted* enlistment bonuses in the Nuclear Field to help achieve a more level flow of accessions into training facilities. EBs for these recruits vary in size by the season in which a recruit agrees to ship; higher bonuses in the fall, winter, and spring months encourage Sailors to ship in these months, reducing the historically large size of the summer accession cohort. In recent years, more ratings have offered targeted EBs.

The Reserve Components also offer an enlistment bonus to people with no prior service who join the Selected Reserve (SELRES) [1], and there is a SELRES affiliation bonus for people on active duty who choose not to reenlist or continue and who otherwise would have an Individual Ready Reserve (IRR) obligation. This bonus can be targeted by occupation.

Theoretical models predict that EBs should be well aligned with the Strategic Goal of *recruiting*. In theory, an EB should have the same effect on recruiting as a commensurate amount of basic pay; both tools represent cash compensation to the Servicemember and, *ceteris paribus*, higher levels of cash compensation will lead to an increase in the number of people willing to reenlist. The empirical literature finds a positive relationship between EBs and the number of enlistments into a Service, although estimates are extremely small [4].

Some have concluded that the complex relationship between financial incentives and recruit behavior makes it virtually impossible for existing statistical methods to yield reliable estimates [32]. Rather, the literature concludes that EBs are more effective at “channeling” accessions into specific skills than they are at expanding the pool of people interested in service [33 and 4]. A compelling explanation for this finding is that classifiers exert a strong influence on the decision

to enlist in a specific rating and essentially control the extent to which people are even aware of the existence and magnitude of EBs [34]. More recently, analysis has confirmed that targeted EBs in the Navy have been effective in convincing Nuclear Field recruits to ship in other-than-summer months [35]. This relationship is similar in spirit to the “skill-channeling” effect of EBs for other accessions; while EBs do not necessarily expand the market for recruits, they are instrumental in aligning recruit behavior with the needs of the Services.

Finally, there is evidence that EBs reduce *retention* at the expiration of the member’s initial service obligation [23]. This is consistent with the theoretical model and the observed relationship between the SRB and retention: since higher bonuses encourage some who would have entered the civilian labor to enlist, *ceteris paribus*, these people have a relatively low preference for military service. While EBs are not intended to align with the Strategic Goal of *retention*, policy-makers should understand that they may make it more difficult to achieve this goal. This is compounded by the fact that EBs encourage untrained personnel to enter occupations in which they acquire skills that make them more marketable to civilian employers.

EBs do align with each of the DoN’s Guiding Principles. First, the EB recognizes the *voluntary nature of service*, in a similar fashion as basic pay and the SRB. People have a choice to pursue civilian employment or military service, and the EB represents an attempt by the Services to encourage people to voluntarily choose to serve. Even if there is no market expansion effect of EBs, the skill-channeling feature of the EB rewards those who voluntarily choose to enter a particular skill, rather than forcing recruits into occupations that the Services need to fill.

The structure of the EB also gives it some *flexibility*. Not all skills offer an enlistment bonus, and the levels of the EB change over time; varying the size of the bonus by the season in which a person agrees to enter service is another example of this flexibility. In addition, the Services use EBs even more sparingly than SRBs; less than 10 percent of Marine Corps recruits are paid EBs (less than half the percentage receiving SRBs), while, at the other end of the spectrum, only 20 percent of Air Force Recruits are paid EBs.³¹

31. See table 3-3 of reference [3].

EBs are considered to be relatively *Best Value* when compared with basic pay. Increases in enlistment bonuses for a skill that has a recruiting shortage can alleviate manning problems in that skill, without increasing compensation for people in other skills. Given the small market-expansion effect, however, it is likely that the cost-effectiveness of the EB is reduced by the extent to which recruiters and classifiers limit the information available to potential recruits. At the extreme, if people are completely unaware of the existence of enlistment bonuses, EBs are exclusively paid to those who would have enlisted anyway. The use of EBs to channel recruits into skills, however, is relatively cost-effective. Classifiers view the selection of occupation as a “negotiation” and only offer EBs if they feel they need to “close the deal.” In this manner, classifiers possibly minimize the extent to which EBs are paid to people who would have selected that skill anyway.

Distribution incentive pays³²

A variety of special pays and in-kind benefits can be used to provide incentives for Servicemembers to accept assignments that are “hard to fill.” Some of these pays are in the special and incentive pay category; others are location SRBs, Cost-of-Living Adjustments, and allowances, such as Family Separation. The Department of the Navy also offers additional in-kind compensation, including sea duty credit for overseas shore tours, promises of attractive follow-on tours, and special quality-of-life programs for members or their families. The existing system of distribution incentives has the following disadvantages:

- Its complexity makes it difficult to master, and such a complex system is costly to administer.
- The different pays, allowances, and benefits all have their own history and special purpose and don’t as a whole adapt to all situations. There are inconsistencies between some pays, conflicts between Services when trying to change pays, and sometimes unintended consequences.

32. For a more complete discussion of deployment and distribution pays see [1, 7, and 36].

- Even with existing incentives, it is often necessary for assignments to be made involuntarily. When this is done, it leads to a potential cost to the Service in terms of lower retention.

In this subsection, we will describe the largest existing distribution or deployment pay—sea pay—and discuss its advantages as well as its shortcomings. Then we will examine the existing, although limited, evidence on a promising new pay, Assignment Incentive Pay (AIP).

Sea pay

First instituted in 1835, sea pay is one of the military's oldest special pays. Today, although primarily paid to Navy Sailors, sea pay rewards qualifying members from all Services who serve at sea. The rationale for sea pay, sea pay eligibility requirements, and sea pay rates has varied over time as manning and retention needs have changed. Today, SECNAV Instruction 7220.77D states that Career Sea Pay (CSP) is designed to recognize “the greater than normal rigors of sea duty, the arduous duty involved in long deployments, and the repetitive nature of assignment to such duty.” In other contexts, sea pay is referred to as a tool to provide incentives to improve sea/shore balance, increase retention, reduce crew turnover, and improve overall fleet readiness [37].

CSP rates increase with rank and with cumulative time on sea duty. The magnitude of sea pay differentials can be substantial, especially for enlisted members. For an E-4 with 3 years of sea duty, CSP is about 14 percent of basic pay, and about 5 percent for an O-4 with 6 years of sea duty.³³ There is also a Career Sea Pay Premium (CSPP), a fixed monthly payment (unrelated to paygrade or amount of sea duty) that is paid to those who serve more than 36 consecutive months at sea. This CSPP, however, isn't available to Sailors in paygrades E-5 and above with over 8 years of cumulative sea duty. These Sailors have a premium embedded in the CSP table instead.

33. The E-4 is assumed to have 6 years of service (YOS), but monthly basic pay is the same for 6 or more years. The O-4 is assumed to have 12 YOS. While monthly basic pay does vary substantially by YOS for O-4s in this range, the monthly CSP payment doesn't change substantially depending on the number of years of cumulative sea duty.

In theory, CSP should help with the strategic compensation goals to *Recruit, Retain, and Assign*. We will discuss in detail its two major effects, assignment and retention. For *Recruiting*, since sea pay is a substantial increase in total compensation for Navy enlisted, theory would also predict a positive effect. In addition, recruits probably perceive that they will be compensated for the rigors of sea duty; this “compensating differential” would (at least partially) offset the negative effect on recruiting of the Navy work environment. There are, however, no empirical studies that document how sea pay affects *Recruiting*.

Retention effects. As discussed with basic pay, allowances, and retention bonuses, most tools that provide substantial cash compensation over a significant portion of the military career will, in theory, have a positive effect on retention. The same is true for sea pay, and a number of studies have discussed the theoretical relationship of sea duty, sea pay, and retention and gone on to estimate the empirical relationship. In general, these studies have combined sea pay into a total measure of military compensation but added other variables to measure the extent of sea duty.

Reference [38] gives a summary of the older literature on sea pay and retention, including the estimates in [24, 25]. More recently, reference [28] included a measure of the extent of sea duty or anticipated sea duty in retention estimates, and reference [6] surveyed more studies. The general findings are that Sailors do react negatively to more sea duty; that is, retention falls if they expect more sea duty, longer tours, or are about to roll from shore to sea. And, like all forms of pay, sea pay has a positive and significant effect offsetting this decline in *Retention*.

Sea pay, of course, is not specifically targeted at Servicemembers who are at the end of a contract, as SRBs are. For this reason, we do not expect sea pay to be as *Best Value* at *Retaining* Sailors as an equivalent amount of money spent on reenlistment/retention/continuation bonuses. A CNA study used the BuPers Annualized Cost of Leaving (ACOL) model to contrast the retention effects of sea pay and SRBs [39]. The retention effects in the ACOL model depend critically on whether a given increase in aggregate sea pay spending is targeted to

Sailors around the reenlistment point or spread evenly across the sea duty population. In general, SRBs targeted to the first-term reenlistment point would be about twice as effective at keeping Sailors in the Navy as sea pay spending spread across the sea duty population. Sea pay is an effective *Assignment* tool and only secondarily a *Retention* tool.

Another thing to consider about sea pay is that it is designed to offset a negative feature of sea service, and if it is not set high enough to do so adequately, retention may still be lower than desired. However, if sea pay more than compensates for the arduous aspects of sea duty, it has the potential to attract people from other communities within the Navy or other branches of Service.

Assignment effects. Although we have limited information on the effectiveness of sea pay at influencing Sailors to spend more time at sea and in the Navy, the information we have suggests that sea pay can be effective. On one hand, since the Navy relies on compulsory sea duty assignments with prescribed sea tour lengths (PSTs), one might expect the time a Sailor spends on sea duty not to reflect a preference for sea duty or to respond to sea pay incentives. On the other hand, not all Sailors complete their PSTs.

For example, for sea tours ending in FY 1999, 67 percent of Sailors did not complete their sea tours, either because they rotated to shore early or because they left the Navy [40]. Also, for Sailors who do complete sea tours, some extend their sea duty. These uncompleted tours and extensions are our only measure of voluntary behavior. To determine the effects of large increases in sea pay in 1981, Navy manpower analysts examined extensions in sea duty before and after the changes took effect [41]. Using changes in projected rotation date (PRD) to measure additional time served on sea duty, they found a 58-percent jump in extensions following the increases.

Recent CNA research also investigated the effects of sea pay on time at sea by examining Sailors' completions and extensions of PST from FY 1987 to FY 1999, a period when sea pay was first increased in FY 1989, then had its value gradually eroded by inflation. The analysts found that patterns in completions and voluntary extensions follow the changes in the value of sea pay [40].

Additional information can be obtained from survey data. Several surveys, such as the annual Navy-wide Personnel Survey and the Navy Homebasing Survey in 1996, have included information on Sailors' willingness to extend on sea duty for additional pay. The Homebasing Survey asked particularly detailed questions about whether the Sailor would extend sea duty, and for how long, given several combinations of additional income and the promise of homebasing. Using survey data and the Enlisted Master Record, the analysts constructed adjusted response rates to quantify how many additional eligible Sailors would extend for additional sea pay alone. These response rates suggest that over 30 percent of eligible Sailors would extend their sea duty at least 1 year for a sea pay increase of \$150 per month. In other words, about 30 percent of Sailors at about 3 years' cumulative time would serve at least 1 additional year on sea duty for a doubling of CSP [39].

The combination of evidence from voluntary behavior and surveys indicates that sea pay can be an effective tool for meeting the *Assignment* goal.

Sea pay reform. Recent and proposed changes to sea pay policy are aimed at increasing the *Flexibility* of this compensation tool. The FY 2001 National Defense Authorization Act moved the authority to change sea pay rates from Congress to the Service Secretaries, within specified statutory maximums. At that time, the maximum monthly CSP was \$750 and CSPP was \$350. Within these limits, however, each Service can set its own sea pay tables to address overall sea manning shortages or shortages by rank without appealing to Congress [37].

The FY 2006 Unified Legislative and Budget (ULB) contained further sea pay initiatives that would increase the CSP cap to \$1,500 and the CSPP cap to \$700 and would allow CSPP payments without the restriction of 36 months of continuous sea duty. This last provision would allow the flexibility to grant a lump-sum incentive to encourage Sailors to move from shore to sea billets and to extend their sea tours. By making this proposal, the Navy indicated that the current ceilings are *not flexible* enough to address its sea manning problems.

Another notable *lack of Flexibility* in current sea pays is that they do not vary by occupation, while sea manning shortages are often

concentrated in certain ratings or specialties. One reform that has been considered is the Sea Tour Extension Program (STEP). This pay would induce Sailors in selected ratings or skills to voluntarily extend their sea tours past their PRDs [42].

Sea pay is aligned with the *All-Volunteer Force (AVF)* in the same way that any significant and visible portion of compensation will encourage people to enter and stay in the Navy.

We have seen evidence that SRBs provide a *Best Value* retention tool compared with sea pay because they are targeted at people at the reenlistment point. Similarly, sea pay should be a relatively *Best Value* tool for inducing volunteers for sea duty. It could be of even higher value, however, if it were targeted even more carefully. For example, it could be targeted more narrowly to occupations that have sea-manning shortages or to people who are candidates for rolling to sea duty or extending at sea. Also, a market-based system similar to that used for Assignment Incentive Pay could reduce rents paid to people who *like* sea duty and who do not need cash incentives.

Assignment Incentive Pay (AIP)

The DoN has traditionally used a variety of methods to alleviate manning shortages in critical billets, including involuntary assignments, sea duty credit for rotational purposes, and a patchwork of special pays and quality-of-life programs. The purpose of AIP is to provide an additional monetary incentive to encourage members to volunteer for hard-to-fill or less desirable assignments, assignment locations, or certain assignment periods.³⁴ Such factors as geographic location, type of job, and length of assignment make some assignments less desirable than others. The existing monetary assignment incentives and other nonmonetary incentives often fail to attract volunteers for all hard-to-fill billets, in which case the Services must order members to take assignments. The National Defense Authorization Act for Fiscal Year 2003 provided for a new type of special pay, to be offered to volunteers for positions designated by the Secretary concerned.

34. The description of the purpose and background of AIP is taken from [3]. As of the 2005 printing, the maximum value of AIP was \$1,500 per month.

The amount of such pay can vary within specified limits by Service, duty station, occupation, and length of assignment.

The Navy began to experiment with an AIP pilot program in June 2003 [43, 44]. In this pilot program, AIP levels are determined by a market-based system. Sailors submit the amount of pay they require to volunteer for less preferred locations along with job applications in the Job Advertising and Selection System (JASS). Submitted bids are constrained only by Navy-set AIP caps, which can vary by location, pay-grade, and rating. The Navy can change AIP caps and locations as shortages become more or less severe [43]. The AIP system is essentially an auction in which Sailors bid on jobs and the winner is the Sailor who submits the lowest bid, that is, who agrees to accept the job at the lowest monthly premium. The Services, however, can take into consideration any factor in the job application, such as whether the member is approaching a critical reenlistment decision point PRD and what permanent-change-of-station (PCS) costs would be.

Since AIP provides additional monetary compensation, in theory it should be aligned with the Strategic Goals of *Recruiting* and *Retention*, even though these are not its primary objectives [3, 7]. Perhaps for this reason, there have been no empirical studies yet of the effect of AIP on accession or continuation behavior. To the extent that AIP can create a more voluntary assignment system, however, and help lessen the negative feelings associated with involuntary orders, it could have substantial positive effects on *Recruiting* and *Retention*. A more voluntary assignment system could also encourage members to *Attain High Performance* either because they are in positions that they value or in order to achieve a desirable posting. Furthermore, if people have greater assurance that they will be able to control what positions they get in the future, it may give them incentives to *Motivate Development* of their skills for these positions.

The Assignment Incentive Pay is an example of a new type of flexible, market-based pay that is aligned with the goals of an *All-Volunteer Force*. This implies a force that not only joins and remains in the Service voluntarily but also accomplishes the goal of getting the right person into the right job voluntarily. AIP was designed to provide a *Flexible* and *Best Value* compensation tool. The Navy has long faced difficulties in manning certain billets and has used a patchwork of assignment incentives to alleviate its problems. If all else fails, the Navy orders

Sailors involuntarily into hard-to-fill billets. A CNA study considered the costs of the current system and looked at how the Navy might encourage Sailors to volunteer for hard-to-fill billets cost-efficiently. The authors found that an AIP type of pay, that was designed to be flexible and market-based, could be a promising way of moving the Navy toward a more voluntary, efficient assignment system. For overseas shore billets that currently use sea-duty credit as an incentive, they estimated that this system would cost as much as 3 times more than an efficiently designed Assignment Incentive Pay. AIP, however, may not be cost-effective for CONUS shore billets [44].

These theoretical estimates of the *Strategic Best Value* of AIP vs. the cost of sea-duty credit for rotation have been confirmed in the empirical evaluation of the initial results of the AIP pilot [43]. This analysis indicates that using AIP rather than sea duty credit resulted in savings 3 to 7 times greater than costs. A further finding of this study is that the AIP program can save even more money if payments are made in lump sums rather than monthly. This is consistent with other findings regarding time preferences for cash compensation.

Since AIP is based on an auction, it is important to make sure the auction process works. Another CNA study modeled simplified bidding systems, reviewed auction design materials, and discussed the Navy's assignment system and potential bidding systems with auction experts and Navy personnel [45]. It highlighted a concern that gaming may occur and identified several options to mitigate it. Encouraging competition is among the most promising strategies to minimize gaming. Other mechanisms, such as encouraging early bidding, are also worth further investigation.

Retirement pay

The current military retirement system dates back to 1947, when Congress implemented a common 20-year system for all Services and for officers and enlisted personnel alike.³⁵ A report by the 1948 Advisory

35. General background on retirement pay is in [1]. See [46] for a discussion of the history of the retirement system and reform attempts, its current structure, and theoretical and empirical research regarding many aspects of its feasibility and how to improve it. References [47–49] also discuss the military retirement system, criticisms, and reform attempts.

Commission on Service Pay (the Hook Commission) shows that the system was controversial from the start. Since the advent of the AVF, DoD commissions, study groups, and researchers have recommended overhaul of the system. The REDUX reforms, which would have provided fewer benefits to most post-1986 entrants, were passed in 1986 but, in the face of mounting criticism, repealed by Congress in FY 2000, making the 20-year system seem more entrenched than ever.

The military retirement system differs from most private (i.e., non-military) government pension plans, which typically have defined-contribution rather than defined-benefit plans, offer earlier vesting, do not start paying benefits at 20 years of service, and are less generous. In the private sector, the Employee Retirement Income Security Act (ERISA) requires employers to vest employees in their retirement system within 5 to 7 years. Once vested, they may take their account balances with them when they leave their current employer. In contrast, the military is exempt from ERISA and its retirement system has no vesting until 20 years, when it offers a uniquely generous payout to people who can be as young as 38 or 40 [50].

For the active force in FY 2003, the retirement accrual charge was over 13 percent of direct compensation (table 3 of [51]). Although retirement pay is a large part of total compensation and is a generous benefit compared with private sector plans, there is evidence that it is not an effective *Recruiting* tool. Only about 4 percent of youth in the Youth Attitude Tracking Study (YATS) survey include retirement in their list of reasons they would strongly consider enlistment [52]. New recruits may value retirement pay less than upfront compensation for two reasons [5, 47]:

- Given recent retention rates, only about 15 percent of new recruits will actually reach 20 years of service.
- Even if they expect to reach retirement and collect the pay, high time discount rates mean that money 20 years in the future is worth little to them today.

The main advantage of the current retirement pay system is in *Retaining* personnel between 10 and 20 years of service. The retirement system has an increasingly strong pull effect on personnel in the

mid-career range. After the 20-year point, however, the retirement system has a very strong “push” effect, making *Retention* beyond this point very difficult [48].

The consequences of the cliff-vesting structure of military retirement pay on *Facilitating Transitions* cannot be overstated. The military retirement package is the reason that, out of those who reach around 10 years of service, most stay until 20 years of service. Very few choose to leave as they approach retirement eligibility, and most remain with the expectation of entitlement to full retirement benefits [47]. The Services accommodate these expectations and are reluctant to involuntarily separate senior personnel. This relationship has been described as an implicit contract between the military and its Servicemembers [49]. The lack of vesting in the military pension until 20 years also means that personnel cannot leave the Service and take a portion of their benefits with them. The following sections on TSP, TSP matching, and VSP describe some of the options and difficulties of instituting these programs with the current retirement system.

The current structure of benefits is also the reason many enlisted personnel leave within a year of reaching 20 years. The cliff-vested retirement system affects the ability of the Services to shape the experience level of its force. Experience profiles beyond the 10th or 12th year of service are driven by the retirement system and are quite similar for both officers and enlisted and across all Services and occupations [53]. Experience profiles driven by the retirement system will only coincidentally align with the real needs of the Services. For some skills, a relatively junior experience profile is desired while longer career lengths would have more value in other skills. As a whole, then, the unique features of the current retirement system dominate *Retention* and *Transition* patterns from YOS 10 through 30.

Reference [46] shows that, as a whole, the current retirement system is cost-effective in generating an across-the-board endstrength and experience profile that is similar to today’s Navy and Marine Corps. The problems arise when the goal is a retirement system that allows for more *Flexibility*. If the guiding principles of the compensation system include supporting a personnel system that can separate mid-careerists in skill groups that have excess supply and provide

variable career lengths for different occupation types, the current retirement system is not optimal. It does not have the *Flexibility* to manage the force by Service, occupation, time, performance, and other parameters at the *Best Value*. Many researchers have noted the consequences of this inflexibility in retirement pay and some have done empirical work that shows that differences in career lengths by occupation would give *Strategic Best Value*, both for enlisted personnel and commissioned officers [29, 54].

As with requiring junior enlisted to live in BQs, it is possible that one motivation for the structure of retirement pay is to do what is best for Servicemembers, even if it is not currently appreciated. This is consistent with the stewardship role, or the view that the military should take care of its Servicemembers in a way that recognizes their sacrifices and minimizes their hardships [47]. The survey data suggest, however, that Servicemembers do not appreciate such attention 20 years in advance.

Thrift Savings Plan (TSP)/TSP matching

The TSP is a vehicle for saving and investing for retirement. Though established in 1986 for federal civilian employees, the opportunity to participate was not extended to military personnel until FY 2001.³⁶ The TSP is similar to “401(k)” plans offered by private-sector employers. In 2005, Servicemembers were allowed to contribute up to 10 percent of basic pay, and up to 100 percent of special and incentive pays, into a TSP account, subject to the IRS limitation that annual contributions not exceed \$14,000 (\$18,000 for those 50 and older).³⁷ Beginning in 2006, Servicemember contributions will only be subject to the IRS limitations on total annual contributions (\$15,000 for people under age 50, \$20,000 for those age 50 and older).

36. For a comprehensive description of the TSP and what it offers Servicemembers, see <http://www.tsp.gov/uniserv/features/chapter01.html>.

37. For government civilians covered by the Federal Employee Retirement System (FERS), the maximum contribution was 15 percent; for those covered by the Civil Service Retirement System (CSRS), the maximum contribution was 10 percent. All government civilians are subject to the same IRS limitations on total annual contributions.

The Federal Retirement Thrift Investment Board then invests these tax-deductible contributions in a variety of financial instruments.³⁸ When members separate from service, they retain ownership of the funds in their TSP accounts; withdrawals are taxed as earnings in the year in which they are withdrawn. Participation in the TSP is voluntary, and those who choose to participate are able to choose their level of participation (up to the maximum amount allowed by law).

The legislation authorizing Servicemember participation in the TSP also provided the Secretary of each Service the authority to designate “critical specialties” that would be eligible for matching contributions (TSP matching).³⁹ Personnel in these specialties who agree to serve on active duty for an additional 6 years are eligible for matching contributions over this 6-year period. For the first 3 percent of basic pay contributed by the Servicemember, the Service will match contributions on a dollar-for-dollar basis. For the next 2 percent of basic pay, the Service provides contributions at the rate of 50 cents on the dollar. In other words, people in critical specialties have the opportunity to earn an additional 4 percent of basic pay. While each Service has TSP matching authority, it has not been used by any Service.

Clearly, TSP and TSP matching are two distinct compensation tools. The former has been used by all Services since FY 2001; the latter is something for which there is legislative authority but it has not yet been used. Despite the differences, we discuss both of these compensation tools in this subsection and assess the extent to which they are aligned with the DoN’s Strategic Goals and Guiding Principles.

The literature has focused on the extent to which Servicemembers will participate in the Thrift Savings Plan [3, 55, 56],⁴⁰ so there is no empirical literature on the efficacy of TSP or TSP matching at achieving the Strategic Goals. However, the theoretical literature does yield

38. The value of the TSP account depends on the performance of the financial instruments over time.

39. <http://www.tsp.gov/uniserv/features/chapter04.html>.

40. Reference [55] also discusses the literature on pension plans, employer matching contributions, and employee participation in private-sector firms and other government agencies.

some insights. Both TSP and TSP matching are weakly aligned with *Recruiting* since they represent expected, additional compensation for those who choose to participate.⁴¹ In this respect, TSP has an effect similar to the traditional military retirement system. However, economic theory does not predict whether this effect will be larger or smaller than that of the defined benefit system.

On one hand, some potential Servicemembers will have no interest in participating in TSP, nor will many expect to ever be eligible for TSP matching.⁴² Furthermore, TSP participation involves a guaranteed reduction in current earnings (as members make contributions) in exchange for uncertain changes in future earnings (depending on the performance of the financial instruments).⁴³ Without data on Servicemembers' expectations of growth in the value of their TSP accounts, it is difficult to estimate the value of TSP to potential recruits. On the other hand, if the value of the TSP account and the standard military retirement benefit were equal, the effect of TSP on recruiting would be greater since a person does not have to serve 20 years before vesting and because the benefit is portable.

In theory, the TSP is also moderately aligned with *Retention*. For those who do not expect to serve 20 years, the Department of the Navy could see an increase in retention. TSP provides a benefit that was previously available only in the private sector. If people were choosing to separate from military service because of more attractive pensions in civilian jobs, TSP removes that incentive to separate. It is likely, however, that offering TSP will *reduce Retention* of people who are considering a 20-year career in the military. TSP provides more options for retirement savings, reducing Servicemembers' reliance on the

41. It is possible that people who choose not to participate immediately value the *option* of future participation. It is unclear, however, how large an effect this option value has on recruiting.

42. For example, reference [3] describes participation in TSP as “exceptional” when it was first implemented, despite the fact that only 8 percent of all Servicemembers enrolled. And, as we have discussed, the Services have not made use of TSP matching.

43. With TSP matching, however, the value of the matching funds themselves does not represent any reduction in current earnings.

standard military retirement benefit for post-Service income. Since TSP weakens the draw of the cliff-vested retirement system, we would expect more people to leave service before becoming vested. TSP matching is expected to have similar effects. However, TSP matching could also increase retention for those with more than 20 years of service if it were targeted to personnel already vested in military retirement.⁴⁴ Targeting TSP matching in this fashion could help solve the problem of providing incentives for longer military careers.

TSP and TSP matching do align, to varying degrees, with the Department of the Navy's Guiding Principles. Both compensation tools recognize the *voluntary nature of service*. In fact, since participation in TSP itself is voluntary, one could argue that these tools are well aligned with this principle. TSP offers little *flexibility* in compensation from the DoN's perspective because it is a benefit that is offered to all Servicemembers. Any variance in the value of a person's TSP account is due to Servicemember choice—not to flexible application of the benefit by the DoN. TSP matching provides a bit more flexibility since it allows the DoN to target the benefit to skills as it chooses. The Services, however, do not have the ability to adjust the level of matching contributions, and it is not clear whether it can be more narrowly targeted than just to critical specialties. These potential limitations reduce the flexibility of TSP matching.

Finally, TSP does provide *Best Value* to the DoN because it involves no direct expenditures on the part of the Service. There is a potential cost to the Federal Government since the tax-deductible nature of Servicemember contributions to TSP accounts will reduce tax revenue in the short run. The empirical evidence is conflicting, but there is some evidence to suggest that the government can make up these tax losses over time [55]. TSP matching, however, has both advantages and disadvantages. It is a targeted benefit, which is more cost-effective than across-the-board increases in compensation. However,

44. It is not clear whether the legislation authorizing matching contributions precludes the Services from imposing more restrictions on eligibility other than working in a critical specialty and agreeing to a longer obligation.

it is also a *deferred* benefit, which Servicemembers value less than an equivalent amount of immediate compensation.

Quality-of-life programs

Health care

The military provides active-duty Servicemembers, retirees, and their dependents a rich health-care benefit, which DoD administers through the TRICARE program. This program, implemented in the 1990s, is an effort to optimize the use of DoD's medical resources while using Veterans Administration facilities and civilian providers [50]. Because the military treatment facilities (MTFs) have a primary military mission, health-care access issues, cost assessments, and resource allocation decisions are complicated. Under any assumptions, however, the cost of the health-care benefit is substantial. A recent CNA study estimates that it cost DoD \$24.8 billion in 2003 (including dental) [57]. Roughly 20 percent of this cost could be attributed to the expanded coverage, known as TRICARE for Life (TFL), for Medicare-eligible retirees.⁴⁵

Beneficiaries who are not retirees can typically choose from three TRICARE options: Prime, Extra, and Standard. The first option, Prime, is the TRICARE health maintenance organization provided through military hospitals and clinics as well as networks of participating civilian medical providers. All active-duty personnel are automatically enrolled in Prime, and other DoD beneficiaries who are not eligible for Medicare can enroll if Prime is available where they live. Currently, there are no premiums or out-of-pocket (OOP) costs in Prime, even when visiting civilian providers.⁴⁶

The options for active-duty dependents who do not enroll in Prime are TRICARE Extra and Standard. Both options allow beneficiaries to

45. The FY 2001 National Defense Authorization Act (NDAA) established TFL.

46. Before 2002, active-duty family members faced \$6 or \$12 copays per visit to civilian network providers. The 2001 NDAA waived these copays. Now there are only OOPs for nonnetwork civilian providers.

seek care at MTFs on a “space-available” basis or to receive care from civilian providers and then submit claims to pay for a majority of their health-care costs. The difference between Extra and Standard is that Extra is administered through a network of providers with whom TRICARE managed-care contractors have negotiated reduced payment rates. When active-duty dependents use Extra providers, they pay a smaller portion (15 instead of 20 percent) of total health care costs in the form of coinsurance. Members and families do not have to enroll or pay a premium for either Extra or Standard, but there is a small annual deductible of \$150 per person or \$300 per family.

When considering retiree health care benefits, there are two types of retirees: those who are not yet eligible for Medicare benefits and those who are. The benefit for non-Medicare-eligible (non-ME) retirees and their dependents is similar to that offered to active-duty personnel and their dependents. They may enroll in Prime, but, if they do so, they must pay an enrollment fee of \$230 per person. They also face nominal cost sharing under Prime. Those who do not enroll in Prime can still use military facilities on a space-available basis or can use TRICARE Extra or Standard. The Extra and Standard benefits are not quite as rich for retirees as they are for active-duty dependents.

The FY 2001 NDAA established the TRICARE for Life program for Medicare-eligible retirees. For no charge, those who live near military hospitals and clinics with excess capacity may enroll in TRICARE Plus and receive their primary care at no cost. There is no guaranteed access to specialty care at the military facility under Plus, but Plus enrollees who do not find available space can go on to obtain care from a civilian provider and use TRICARE Standard as a second payer to Medicare. Those Medicare-eligible beneficiaries who do not enroll in Plus simply use TRICARE Standard as a Medicare supplemental plan. Standard covers almost all allowable charges not paid by Medicare. TFL also includes benefits that are difficult to find or very expensive in most private-sector Medi-gap plans, including prescription drugs. As was stated above, the cost of TFL has been estimated to be as high as 20 percent of DoD health-care costs.

A number of studies (such as [57, 58, and 17]) have tried to place a monetary value on the TRICARE benefit. In [57 and 58], TRICARE

benefits were compared with health-care benefits offered by private insurers, with a special emphasis placed on health plans offered under the Federal Employees Health Benefit (FEHB) program. In [57], CNA researchers ran a simulation model, which showed that DoD's TRICARE plans scored highest in terms of overall richness of coverage. Premium differences constitute the biggest driver in this result. In [17], CNA analysts quantified the value of the DoD health benefit relative to the typical private-sector health care benefit. They found that in 2004 both enlisted Servicemembers and officers with 5 or 10 years of service avoided about \$2,300 to \$3,200 in premium and OOP costs.

The DoD health-care benefit is more generous than private-sector plans, including those offered under the FEHB program, which is often held up as a “gold standard” among health-care benefit programs. As a relatively generous benefit, and as the largest benefit (in terms of dollar value) that DoD provides, health care must help to *Recruit* and *Retain* members in the *all-volunteer* force.

Some researchers have questioned the value of a generous health-care benefit in *Recruiting*, especially a health-care program weighted heavily toward retirees. As was discussed with retirement pay, new recruits put a low value on money at the ends of their careers because of high discount rates and the low probability of continuing for 20 years. In 2004, 36 percent of large firms (200 or more workers) offered retiree health-care benefits; out of these, almost all offered benefits to early retirees, while about three-quarters offered them to Medicare-eligible retirees.⁴⁷ In addition, young people in general are a healthier population with fewer dependents who make less use of health-care resources and thus put a lower value on health insurance.

Furthermore, it is common for private-sector firms to recognize that different employees have different needs and tastes and to provide them with choices by offering more than one health insurance plan or other types of cafeteria plans [12]. The 2004 Kaiser survey found

47. Reference [59] reports this finding as well as the downward trend over time in providing retiree health care. In 1988, 66 percent of large companies offered this benefit.

that about half of all workers with health coverage through their employer have a choice of three or more health plans. Furthermore, for workers in large firms, only 18 percent were offered just one plan [59]. A choice of health-care plans could allow new recruits the option of taking a less generous plan and trading this for a more desired benefit or a cash credit.

Evidence regarding the effect of health care on *Retention* comes from a study of DoD's 1999 Survey of Active Duty Members, which found that the health-care benefit was not among the most common reasons cited for leaving the military [60]. The top five reasons for leaving or considering leaving the military follow:

1. Basic pay (28 percent)
2. Amount of personal and family time (9 percent)
3. Quality of leadership (8 percent)
4. Job enjoyment (7 percent)
5. Disruptions caused by deployments (6 percent).

Only 3 percent of the force indicated that the health-care benefit was a top reason for considering leaving. Still, among this small group, 81 percent reported that they were likely or very likely to stay in the military at least 20 years.

More recent data reflect a high level of satisfaction with the military health-care benefit. In the 2002 Active Duty Status of Forces Survey, 62 percent of respondents reported being "satisfied" with their medical and dental care; 46 percent report being "satisfied" with the medical and dental care available to their families.⁴⁸ Servicemember satisfaction with the health-care benefit was significantly higher than satisfaction with all other forms of compensation, including basic pay, the military retirement benefit, and military housing. These data are consistent with the notion that the health-care benefit has a positive

48. Refer to <http://www.pentagon.mil/news/Feb2003/d20030225sofa.pdf> (page 14). Respondents could also indicate that they were "dissatisfied" or "neither satisfied nor dissatisfied."

effect on retention since the literature shows a generally positive relationship between satisfaction with quality-of-life programs and retention [22].

There is some evidence that TRICARE may restrict flexibility in *Assignments* because of issues regarding access to health care. Beneficiaries' satisfaction with the care they receive under TRICARE seems to be highest where the network is built around a military medical facility that provides as much care as possible in-house [14]. There are more beneficiaries' complaints about access to care in locations where there is no MTF, and these complaints have steadily increased over time. This aspect of TRICARE may give members an incentive to choose assignments based on the location of very fixed DoD medical facilities.

The current military health-care benefit is *Inflexible* in the sense that neither the DoN nor the individual Sailor has a choice about what can be offered. It has seemed to respond to political pressures rather than changing labor market conditions—becoming more generous just when most employers are lowering their benefits. In addition, the health-care benefit cannot be targeted at specific populations to attract, retain, and separate personnel [12].

On one hand, the empirical evidence cited above that most Americans pay thousands more for their health-care benefits than Servicemembers do may indicate that TRICARE is *More Costly* than it needs to be. On the other hand, it is possible that TRICARE is still a *Best Value* tool if it provides value or supports objectives that outweigh its higher cost. The subsection that follows on which tools can best be expanded, discontinued, or modified to meet the DoN's Strategic Goals and Guiding Principles will discuss further how TRICARE could be made a *Better Strategic Value*.

There are sound reasons, however, for supplying a health-care benefit rather than an equivalent amount of cash pay. These reasons explain why health care is the most universal benefit provided to employees by private-sector firms [50]. First, providing health-care benefits helps to keep employees healthy and productive, leading to higher readiness and helping to *Attain Higher Performance*. It may be especially important to ensure that military Servicemembers are fit for duty in

order to preserve readiness. Second, it is a *Strategic Best Value* to have employers provide some level of health-care benefits rather than have individuals buy them because employers can pool health risks. Thus, some form of health-care benefit plan is an important part of the compensation strategy.

One of the main reasons for making the military health-care benefit relatively more generous than others, however, seems to be the military's desire to take care of its people. In particular, this seems to be one of the few possible explanations for the expensive and controversial TRICARE for Life program. Yet another example was provided in the same legislation (FY 2001 NDAA) when modest copays for beneficiaries seeing civilian providers were abolished. This demonstrated the tradeoff made between the stewardship objective of giving families free health care vs. a proven incentive not to "overconsume" medical care.

Potential compensation tools

Voluntary Separation Pay (VSP)

For senior personnel, the lure of the military retirement system provides a strong incentive to remain until 20 years of service, and very few choose to leave active duty as they approach retirement eligibility. Given a reluctance to involuntarily separate these personnel, the DoN sees a need for an additional force-shaping tool to encourage people to *voluntarily* separate before being fully vested. Recent legislation has been drafted that would authorize the use of a tool for meeting these objectives: Voluntary Separation Pay.

While the Services have not been granted this authority, and no legislation is currently pending, some general principles are likely to be part of the pay when it is finally enacted [61].⁴⁹ First, the Services will

49. Offering financial incentives to encourage voluntary separation is not without precedent. During the drawdown of the 1990s, the Services induced separations with the Variable Separation Incentive (VSI), the Special Separation Benefit (SSB), and Temporary Early Retirement Authority (TERA). Authority for these pays expired in 2001. See [60] for a discussion of the use of these authorities in the 1990s.

have the option of a lump-sum payment or installment payments. Second, the Services are likely to have a significant degree of *Flexibility*. The restriction placed on the Services is a specification of the range of years of service to which VSP can be offered. Within these years, the Secretary of each Service will have the discretion to target separation incentives. Finally, the Services will be able to set the level of VSP payments in order to separate the desired number of personnel, within minimum and maximum legislated boundaries.

Since VSP has not been implemented, there is no empirical literature on the extent to which it helps the DoN achieve its Strategic Goals. Like the standard military retirement benefit and TSP, however, economic theory predicts that there could be a small, positive effect on *Recruiting* and a modest effect on *Retention*. VSP could be expected to have a larger effect on recruiting and retention than the military retirement benefit since the latter affects only those who expect to serve for 20 years. If VSP is available to members the Services want to *remain* on active duty, retention will suffer. This suggests that restricting eligibility for VSP is an important consideration. Note again, however, that VSP is *not intended* to further the Strategic Goals of *Recruiting* and *Retention*, and policy-makers probably will not evaluate its efficacy on its ability (or failure) to help meet these objectives.

As the name of the compensation tool implies, the goal of VSP is to *Facilitate Transitions* from service. References [61 and 62] examine the use of voluntary separation incentives by private-sector and government employers, and even the military's own use of these tools during the drawdown of the 1990s. The consensus of this literature is that separation incentives do induce early separations and that, in general, the larger the incentive, the larger the population that will agree to separate or retire early. In particular, the military literature concludes that combining voluntary separation incentives with the threat of involuntary separation further improves their efficacy [63]. Given these successes, it is reasonable to expect that VSP, when properly structured, would work in a similar fashion.

VSP is also well aligned with the Department of the Navy's Guiding Principles, especially when compared with other compensation tools the DoN has to encourage transitions and separations. VSP is more

aligned with recognizing the *voluntary nature of* service than the standard retirement benefit. The latter implicitly forces people into a one-size-fits-all career path, while VSP provides opportunities to separate (with compensation) at a point in the career where both the individual and the Services feel it is advantageous. Note, however, that combining VSP with a threat of involuntary separation is not consistent with this Guiding Principle. If refusing VSP results in some chance that a person will be separated anyway, separation is no longer truly “voluntary.”

If the Services use the discretion provided in the legislation, it also provides a great deal of *flexibility*. The only current restriction is a relatively wide range of years of service to which VSP can be offered. The Services will have the flexibility to offer VSP to different skills/ratings, specific years of service within these boundaries, rank, or remaining period of obligated service. Furthermore, the Services can offer different levels of VSP to different groups within the population of personnel that it wishes to voluntarily separate. In other words, VSP is designed to *partially* provide the flexibility that the military retirement system lacks. VSP, however, provides no mechanism to encourage longer military careers.

Finally, VSP has the potential to be *Best Value*. Since Servicemembers prefer immediate over deferred compensation, VSP can be set at a level lower than the cost to the government of the military retirement benefit. It is also believed that VSP is a more cost-effective alternative than using Involuntary Separation Pay (ISP), a tool already at the DoN’s disposal. This is believed to be true, even though it is likely that VSP payments will exceed what members would have received in ISP.

There seems to be a conviction that involuntary separations would violate an implicit contract between the Services and their Servicemembers [49]. The consequences of such a violation are (a) the extent to which it lowers the trust that Servicemembers have in the DoN, (b) the degree to which this lack of trust affects the ability of the Services to recruit and retain the people it *wants* to remain on active duty, and (c) the extent to which productivity of current Servicemembers would suffer. There do not appear to be any empirical estimates of the relationship between “trust” and productivity and the ability to

recruit and retain. In other words, the literature does *not* demonstrate that VSP is truly more cost-effective than ISP.

In application, the cost-effectiveness of VSP has yet to be demonstrated. There are a number of pitfalls associated with setting the level of VSP. If VSP is set too low, the only people who will choose to voluntarily separate are those who would have left the Services anyway. In this scenario, the return on investment of VSP would be zero: additional expenditures would be incurred without any additional separations. If VSP is set too high, the Services will be paying more than necessary to encourage voluntary separations, and this reduces any cost-effectiveness properties. At the extreme, if VSP were set equal to the value of military retirement, its cost-effectiveness would be even lower than the current system since the Services would receive fewer years of service from Servicemembers in return for the same expenditure on compensation.

Finally, it is possible that a poorly implemented program could provide adverse incentives to become eligible for VSP so that VSP would induce people to *Attain Lower Performance*. This behavioral response would also reduce cost-effectiveness since the Services would receive fewer *productive* years of service in return for compensation. This potential pitfall to achieving cost-effectiveness points to the importance of appropriately structuring VSP and the rules for eligibility, and for ensuring that VSP never be considered an entitlement.

Quality-based compensation

Several researchers have noted that the military compensation system provides very few tools that are aligned with the Strategic Goal of *Attaining High Performance* [7, 47]. Promotion and the speed of promotion are the only tools that explicitly recognize and reward the quality of a person's performance or the person's productivity. Compensation that varies by rank (e.g., basic pay and BAH) rewards performance since it provides incentives to distinguish oneself and attain additional promotion.

Coupling promotion and compensation creates a powerful incentive to perform, but it does have its limitations. There are a finite number of ranks to which a person can be promoted, and promotions occur

relatively infrequently. To the extent that the Department of the Navy can increase the link between pay and performance, it will strengthen the incentive to maintain and increase productivity, which has clear readiness benefits.

The Department of the Navy could introduce an individual-quality component into compensation in a number of ways. A relatively minor change would be to link installment payments of SRBs to an individual's rank at the time the installment is paid. Currently, SRBs are based on the member's rank at the time of the reenlistment decision; once a person has qualified for a bonus, there is no additional incentive to remain productive [12]. A more significant adjustment to SRBs would be to add a quality component to the determination of the bonus for which a person is eligible. With this change, higher-quality people in a rating would receive higher bonuses than lower-quality people in the same skill. Furthermore, reenlistment bonuses could be paid to high-quality personnel, even if the rating in which a Sailor is employed is not normally eligible for an SRB.

Comprehensive changes to the basic pay tables could also tighten the link between compensation and productivity. Currently, basic pay varies by both rank and length of service. As a result, people who promote more quickly than others receive a relative *temporary* increase in compensation; as soon as slower promoters reach the next paygrade, their compensation is identical to those who promoted more quickly. Linking basic pay with time in grade, rather than time in service, would provide an additional incentive to perform since faster promotion would create a *permanent* differential in compensation [11].⁵⁰

There is empirical evidence to support the idea that Servicemembers will respond to appropriately structured incentives with increases in productivity [64]. It is critical, however, that quality be objectively and accurately quantified and measured, and we acknowledge that this is not a trivial task. However, more frequent remuneration for performance would increase the incentive to perform and help align compensation with the Strategic Goal.

50. For a notional example of how this system might work, see appendix B.

In addition to the Strategic Goal of *Attaining High Performance*, quality-based compensation could also help achieve the goals of **Recruiting** and **Retention**, as well as *Motivating Development* of a workforce that willingly acquires and uses skills, knowledge, and abilities required for specific jobs. With recruiting and retention, explicitly paying for performance would alter the mix of personnel who choose to serve. In theory, those who are most willing to work productively will be those most interested in service. It is possible that the Services would see a decrease in recruiting and retention; however, these decreases would be due to the least productive personnel pursuing alternative employment opportunities. However, if people feel that quality is not objectively and accurately measured, reductions in recruiting and retention would be more troublesome. Finally, the link between quality-based compensation and *Motivating Development* is clear: if people are compensated for acquiring and using knowledge, skills, and abilities, they are more likely to acquire and use them.

Quality-based compensation is also well aligned with the Department of the Navy's Guiding Principles. It recognizes the *Voluntary nature of service*, particularly in the case where Servicemembers are rewarded for *Motivating the Development* of voluntarily acquiring skills that make them more productive. It also recognizes that productive members are valuable contributors to the organization, and that the most productive can leave service if they feel they are not adequately compensated. In principle, this form of compensation could be structured with a great deal of *Flexibility* and could be *Best Value* relative to existing tools. For example, adding a quality dimension to the payment of reenlistment bonuses would reduce the difficulties of paying higher SRBs to Servicemembers who do not need them in order to reenlist [29]. As compensation becomes more targeted, the likelihood that a compensation tool is *Best Value* becomes even larger.

Identification of promising compensation tools

As we have demonstrated, some of the compensation tools available to the Department of the Navy are fairly well aligned with both the Strategic Goals and Guiding Principles of compensation. Other tools, however, are poorly aligned with these standards. In this section, we evaluate the relative advantages and disadvantages of each tool assessed in the previous section and identify the most promising to expand or for the DoN to begin to use.⁵¹

Since the current environment in which DoN operates is not necessarily representative of a longer term perspective, we provide both near- and long-term recommendations. In addition, we assess the potential difficulty of implementing any changes to the compensation system. While some adjustments can be made at the discretion of the DoN, others will require inter-Service cooperation and/or congressional approval and may not be practical in the short run.

Expansion and use of compensation tools in the near term

Basic pay

Basic pay is fairly well aligned with two of the Strategic Goals, *Recruiting* and *Retention*, and the variation in basic pay by rank and length of service also helps to *Attain High Performance* and *Facilitate Transitions* from service. However, basic pay falls relatively short of other tools when considering two of the Guiding Principles, *Flexibility* and *Best Value*. While basic pay does vary by rank and length of service, and Congress has shown a willingness to make annual adjustments to

51. The matrix in appendix C is a summary how the selected tools assessed in the previous section align with the strategic goals and principles. The near- and long-term recommendations in appendix D provide a summary of what we identify as the most and least promising tools.

basic pay, it is not flexible enough to respond to occupation-specific recruiting and retention problems *or* to Service-specific manning challenges. In this respect, basic pay is not as cost-effective as EBs in combating recruiting problems, and it is not as cost-effective as SRBs in combating retention problems.⁵²

Furthermore, without changing the current structure of basic pay, it is inferior to other tools in *Attaining High Performance* and *Facilitating Transitions* from service. Variation in basic pay by time-in-grade rather than time-in-service would significantly increase the incentive to perform. In addition, the lack of continuous increases in basic pay with length of service provides only a weak incentive to separate from the Service. Therefore, as a compensation tool, basic pay is inferior to several of the tools readily available to the Department of the Navy.

Therefore, we recommend that the DoN push harder for increases in other components of compensation rather than basic pay. Different recruiting and retention environments in the Navy and Marine Corps require a compensation tool that is more flexible than basic pay. Consequently, we recommend that the DoN advocate expansion of more targeted compensation tools that are aligned with these Strategic Goals. This would allow the Department to address the Navy's and Marine Corps' unique challenges in the *Best Value* manner.

Despite these shortcomings, basic pay is still the principal form of compensation provided to personnel in exchange for their military service. Furthermore, a great deal of the attention paid to military compensation is in the form of frequent examination of basic pay by DoD and by Congress [3].⁵³ Our assessment is that this disproportionate emphasis on basic pay reflects a desire for *equity*, to ensure that every Servicemember faces the same pay scale. We view the concept of equity as a subjective assessment by policy-makers; in practice, not

52. Both EBs and SRBs have the flexibility to vary both by Service and by occupation.

53. Even though reference [3] compares regular military compensation (basic pay, BAH, BAS, and the tax advantage) with civilian earnings, its main recommendations are focused on changes to the basic pay tables.

everyone will consider compensation to be equitable.⁵⁴ Because basic pay varies by some characteristics and not others, expanding basic pay will not remove all dimensions of inequity.

Nevertheless, manning difficulties in the Army make it likely that all Servicemembers will see an increase in basic pay.⁵⁵ In an era of intense efforts to control budgets, this will limit the extent to which the Department of the Navy can expand or begin to use more appropriate compensation tools for its Servicemembers. Therefore, we also encourage DoN policy-makers to work with the Army, DoD, and Congress to expand compensation tools that are specifically targeted to the Army's recruiting and retention challenges.

BAH and military housing

In most respects, BAH is a more effective compensation tool than military housing. The literature demonstrates that Servicemembers value housing less than it costs the military to provide it. In other words, the Department of the Navy could eliminate military housing, compensate displaced Servicemembers with BAH, and make its Servicemembers better off on average. Observed preferences for onbase housing were due to the fact that historical payments of housing allowances covered only a fraction of actual housing costs. With recent efforts to increase BAH and reduce Servicemembers' out-of-pocket costs when securing housing, this is less likely to be a factor. Therefore, we recommend that the Department of the Navy *not* pursue expansion of military housing in the near term.

BAH does play a significant role in three of the Strategic Goals: *Recruiting*, *Retention*, and *Assignment*. It could also be argued that the tax-free nature of BAH aligns it with the Guiding Principle of *Best*

54. For example, the structure of RMC would imply that differences in pay by occupation, Service, and individual performance are considered "inequitable," while differences by rank, length of service, location and dependency status are not.

55. With a disproportionate number of members serving in Iraq, we suspect that the challenges faced by the Army will ultimately sway Congress (not to mention DoD policy-makers) to significantly increase basic pay.

Value. From the Department of the Navy’s perspective, paying BAH to Servicemembers allows DoN to transfer part of its compensation costs to the Department of the Treasury. While this provides the military departments with a discount, the total cost of BAH is higher when considered from the point of view of taxpayers. Furthermore, the tax advantage artificially reduces the apparent cost of labor to DoN and could cause it to make incorrect resource allocations.

The greatest disadvantage of BAH is that it is less *flexible* than AIP and falls relatively short in meeting its primary Strategic Goal, *Assignment*. While BAH payments are annually adjusted to compensate Servicemembers for changes in the average price of housing in a given location, BAH only considers one aspect of the cost-of-living in that location and ignores relative preferences across locations. In contrast, the structure of AIP allows Servicemembers to consider *all* costs, as well as their individual preferences, when deciding how much additional compensation they would require to be assigned to a given location. While AIP payments are not currently indexed to changes in the cost-of-living over the length of one’s tour, this is not a weakness of AIP *per se* but of the current structure of the compensation tool.

The payment and structure of BAH, like basic pay, reflects a desire for *equity*, to ensure that every Servicemember receives the same pay. As we noted in our discussion of basic pay, compensating Servicemembers with dependents more than those without dependents is apparently not considered “inequitable” by policy-makers. Nevertheless, Servicemembers without dependents might not perceive the equity in such a system. Furthermore, Servicemembers with dependents are more costly to move from one location to another, and their families typically consume more in-kind benefits. Consequently, any compensation tool that rewards dependency status cannot be considered to be *Best Value*.

Replacing BAH with AIP would, in principle, remove the dependency differential and eliminate some of the inequities in the current compensation system. Even though Servicemembers with dependents might request higher AIP in order to accept an assignment, the AIP system is designed to ensure that the most qualified candidate is assigned to a billet at the lowest cost. To be assigned to a desirable location, then, Servicemembers with dependents will have to submit

requests for AIP that are competitive with the levels requested by those without dependents.

We are not suggesting that the Department of the Navy abandon its traditional goal of “taking care of its Servicemembers.” However, the DoN can still preserve this commitment *and* craft compensation policies that are equally attractive to those with and without dependents. Spending the dependency differential in BAH more wisely would help DoN to *Recruit* and *Retain* a more mobile group of personnel who are easier to *Assign* and would also *Facilitate Transitions*.

Therefore, while we recommend that the Department of the Navy transition from paying BAH to its Servicemembers to adopting AIP on a larger scale, we acknowledge that it will be difficult to overcome equity concerns. In particular, any recommendation to remove the dependency differential is likely to be met with a great deal of resistance. In the near term, then, it is prudent for the DoN to ensure that BAH payments *continue* to compensate Servicemembers for their out-of-pocket housing costs and that annual adjustments to housing allowances preserve this relationship.

Health care

There are two strong arguments for providing a health-care benefit to Servicemembers. First, it helps ensure that personnel are fit for duty and able to perform. Second, health insurance is relatively cheaper when provided by employers than when purchased individually since the risks of health problems are spread over more people. This suggests that the health-care benefit can be *Best Value* compared with requiring each Servicemember to obtain his or her own health coverage.

When measured against the Strategic Goals, TRICARE Prime (the health-care option in which all active-duty Servicemembers are enrolled) is well aligned with *Recruiting* and *Retention*. These members are provided access to quality health care without having to pay premiums or out-of-pocket costs when they visit a physician; a comparable benefit would be significantly more expensive if they chose to work for another employer. It is possible that this benefit hampers the goal of *Assignment*, to the extent that people with concerns about access to health care in some locations might be reticent to accept such an

assignment. It could also be argued that retiree health care benefits *Facilitate Transitions* from service since individuals are not forced to choose between separating from active duty and continuing to receive access to health care.⁵⁶

When evaluated against the Guiding Principles, however, the health care benefit does less well. The benefit is so generous relative to non-military plans that it seems to be heavily weighted toward “taking care of Servicemembers and their families” without being as *Best Value* and *Flexible* as it could be.

Therefore, we recommend that the Department of the Navy support a continued provision of health care to its Servicemembers but also seek ways to make the current system more cost-effective and more flexible. We offer two suggestions to improve *Strategic Best Value*:

- Beneficiaries now only need to enroll for TRICARE Prime or Plus; they do not have to enroll in Extra or Standard⁵⁷ and can use either on a case-by-case basis. This makes it difficult for DoD to manage its system. Forcing beneficiaries to decide whether they will use TRICARE and which option they will use will reduce uncertainty about who will receive care from the military system, which will lead to management efficiencies and better use of resources. Such an enrollment system, however, would necessitate the imposition of significant premiums—something that has not been politically feasible over the past several years.
- Members would be required to pay copays whenever they visit a treatment facility. The literature is clear that copays, even if they are extremely small, make a substantial difference in use rates of health care.

56. In general, the retiree health-care benefit enjoys all the advantages, and suffers from all the disadvantages, of retirement pay. We evaluate retirement pay in the next section.

57. TRICARE Extra and Standard are options for dependents that allow dependent beneficiaries to seek care at MTFs on a space-available basis or receive care from civilian providers. Extra differs from Standard in that it has a network of providers with whom it has negotiated reduced rates. More detail is given in the earlier discussion (see p. 46).

The current health-care benefit is very *inflexible* since neither the DoN nor the individual has a choice about what is offered. It cannot be targeted to the specific groups of people that the Department wishes to attract, retain, or separate. In fact, the health-care benefit is targeted to two specific populations: those who are more likely to need health care and those with dependents. The former group does not seem consistent with the objective of supporting the military mission; the latter group enjoys a more generous benefit than do Servicemembers without dependents.

The health-care benefit could be made more flexible by moving to a cafeteria-style benefit plan. For example, Servicemembers with dependents would choose between health-care coverage for their dependents *or* some other benefit (including additional cash compensation). Those without dependents would not be required to make this tradeoff, unless they expected to acquire dependents in the near future. This approach allows people to choose the benefits in which they have the most interest, which allows the Department of the Navy to provide benefits with the greatest value to each person.

In the larger context of the military compensation package, health care is just one benefit offered to Servicemembers, so the cafeteria-style benefit plan would allow members to choose among levels of several different benefits.⁵⁸ A more comprehensive cafeteria-style benefit plan would be a revolutionary idea in military compensation and would require substantial time, inter-Service cooperation, and congressional approval to implement. There is further discussion of this in the subsection that follows on long-run recommendations. In the near term, however, a pilot program could highlight the value of this approach and significantly improve the flexibility in the provision of in-kind benefits.

Finally, TRICARE for Life (TFL) is *not* well aligned with the Strategic Goals and Guiding Principles. The cost of TFL has been estimated to be as high as 20 percent of DoD health-care costs. This benefit is targeted to former Servicemembers, not to the people that the DoN

58. Given the concern that all people receive access to some health care, this plan could require minimum levels of benefits, where necessary.

needs to *Recruit, Retain, Assign, and Attain High Performance* from in order to carry out its mission. In the near term, then, we recommend that the DoN begin to work toward the repeal of TFL, including grandfather clauses as appropriate, or, at a minimum, not support further increases in retiree health benefits. This will be an extremely ambitious undertaking, will require extensive lobbying within DoD and Congress, and will be met with resistance by former Servicemembers. However, the costs of TFL outweigh any observable benefits.

Retirement pay

The current retirement system is *not* well aligned with the Strategic Goals it is intended to support. Its main advantage is in *Retaining* personnel between 10 and 20 years of service. This is due to the cliff-vested structure of retirement pay. Unfortunately, since very few choose to leave as they approach retirement eligibility, the *Retention* component of retirement pay limits its ability to *Facilitate Transitions* from service, its primary function. The literature also demonstrates that retirement pay has a negligible effect on *Recruiting*.

Furthermore, retirement pay falls far short of two of the Guiding Principles, *Flexibility* and *Best Value*. The structure of the retirement system is identical for all Servicemembers, and it cannot be targeted at groups the Services would most like to stay—not by occupation, experience level, or performance criteria. Experience profiles beyond the 10th or 12th year of service are driven by this system and are very similar, both for officers and enlisted personnel, and across all Services and occupations. The literature is clear that this inflexibility limits the cost-effectiveness of the retirement system as a compensation tool.

Despite these shortcomings, and almost universal criticism of the systems by commissions and analysts, retirement pay has proved to be remarkably resilient. For example, substantive changes to the system were made in 1986, but Congress repealed the changes in 2000, before a single Servicemember retired under the new system. This experience is a strong signal that any changes to the retirement system will be difficult and will require a great deal of cooperation among the Services, DoD policy-makers, advocacy groups, and Congress.

In the near term, we recommend that the Department of the Navy seek out additional compensation tools that mitigate some of the flaws of the current system.⁵⁹ While these tools will not directly reform the retirement system, they should reduce the deleterious effects of the current system. In the long term, we also recommend that the DoN advocate more substantive reforms to the retirement system. We discuss some of these reforms in the subsection below.

Sea pay

Sea pay is fairly well aligned with the Strategic Goal of *Assignment*. The literature suggests that it has *Retention* effects as well since sea pay serves as a compensating differential to the arduous nature of sea duty. However, sea pay falls relatively short of other tools when considering two of the Guiding Principles, *Flexibility* and *Best Value*. Since SRBs are targeted to those making reenlistment decisions in skills with manning shortages, they are more cost-effective than sea pay at increasing reenlistment. Similarly, a market-based pay, such as AIP, is more cost-effective than sea pay at assignment since it reduces the amount paid to those people who *like* sea duty and do not require additional cash compensation.⁶⁰ Both of these compensation tools have a flexibility that sea pay lacks, and this relative inflexibility leads to our assessment that it is an inferior tool.

This does *not* mean, however, that sea pay should be immediately eliminated. In theory, Assignment Incentive Pay is a superior compensation tool when trying to further the Strategic Goal of *Assignment*. As we have discussed, however, AIP is a relatively new tool, with relatively little empirical evidence to support claims of its efficacy. In contrast, sea pay has a long, well-established history, and both DoD policy-makers and Congress are very familiar with its purpose and role in manning the fleet. Because it is relatively difficult to obtain legislative authority for additional compensation tools (even to expand authorities for existing tools), we caution against abandoning

59. We will discuss two such possibilities, TSP matching and VSP, shortly.

60. Presumably, one of the reasons that people choose to serve in the Navy instead of another Service is *because* of sea duty. In other words, those who serve in the Navy already have a relative preference for sea duty.

sea pay too quickly. Rather, we recommend that the Department of the Navy *retain* sea pay as a compensation tool while it gathers empirical evidence on the efficacy of AIP. In addition, we recommend that the DoN continue to examine the level of sea pay to ensure that it continues to achieve desired manning levels in sea duty billets.

Selective Reenlistment Bonuses

SRBs are very well aligned with the Strategic Goal that they are intended to support: *Retention*. In addition, they are relatively *Flexible* and provide *Best Value*, especially when compared with other compensation tools that we have discussed. This does not imply that the SRB cannot be made *more* flexible and *better* value. For example, altering the structure of the SRB, so that it is paid in a lump sum at the time of the reenlistment decision, would increase its cost-effectiveness. Introducing a quality component to the determination of the bonus for which a person is eligible would improve both flexibility and cost-effectiveness and would be aligned with the Strategic Goal of *Attaining High Performance*. The Department of the Navy could also *Attain High Performance* by linking installment payments to a Servicemember's rank at the time an installment is paid.

Therefore, we recommend that the Department of the Navy *retain* the SRB as a compensation tool and, as its name implies, *selectively* pursue expansion of the use of this tool as manning conditions require. The literature already suggests that widespread expansion of SRBs is not a *Best Value* strategy and, if the Army's manning challenges result in an increase in basic pay, further expansion of SRBs will be even less cost-effective. However, SRBs continue to be a powerful compensation tool and one of the more successful that the DoN has in its arsenal.

In addition, we recommend that the Department of the Navy consider paying SRBs in lump-sum amounts. The Marine Corps pays SRBs in lump sums now, so the Services already have some discretion in how they pay bonuses; following the Marine Corps example would increase their *Strategic Best Value* to the Navy.

SRBs could be used to better *Attain High Performance* in either of two ways. The first is, if bonuses are not paid in lump sums, installment payments can be tied to rank at the time an installment is paid. The

second is adding a quality component to the determination of the bonus for which a person is eligible. The second option has the added benefit of improving *Flexibility* and *Strategic Best Value*, although we stress that quality needs to be objectively and accurately quantified and measured for this initiative to be successful.

Enlistment Bonuses

EBs are very well aligned with the Strategic Goal that they are intended to support: *Recruiting*. Furthermore, they have the potential to be relatively *Flexible* and provide *Best Value*, especially when compared with other compensation tools that influence recruiting. Since EBs are typically paid to people to acquire skills in areas judged to be critical, they also further the Strategic Goal of *Motivating Development* of the workforce. While EBs are not intended to align with *Retention*, there is some evidence that offering enlistment bonuses reduces retention at the expiration of the person's initial service obligation. This is, in effect, a direct consequence of *Motivating Development* of the workforce: EBs encourage untrained personnel to enter occupations in which they acquire skills that make them more marketable to civilian employers.

The main weakness of EBs lies in the extent to which recruiters and classifiers limit the information available to potential recruits. This is not a flaw of the enlistment bonus *per se* but rather of the way in which this compensation tool is used. At the extreme, if people are completely unaware of the existence of enlistment bonuses, EBs are exclusively paid to those who would have enlisted anyway. This reduces the cost-effectiveness of the compensation tool.

Therefore, we recommend that the Department of the Navy *retain* the EB as a compensation tool and *selectively* pursue expansion of the use of this tool as manning conditions require.⁶¹ In addition, we

61. If the Army's and Marine Corps' manning challenges result in an increase in basic pay, further expansion of EBs, such as the SRB, will be less cost-effective in the short run. Nevertheless, we recommend that the DoN retain the EB as a compensation tool to use more aggressively when manning conditions require.

recommend that the DoN consider ways to provide potential recruits with more complete information about the magnitude of the bonuses available to them. This will likely encourage some people to enlist who would not otherwise have done so.

Assignment Incentive Pay

In theory, AIP is well aligned with three of the Strategic Goals, *Recruiting*, *Retention*, and *Assignment*. In addition, the structure of AIP is consistent with two key Guiding Principles, *Flexibility* and *Best Value*. While both the design and initial evaluations of AIP are promising, its pilot program is only 2 years old. Consequently, empirical evidence on the extent to which AIP *actually* furthers the Strategic Goals and aligns with the Guiding Principles is limited. It is our assessment that the theoretical underpinnings of AIP are so strong as to warrant continued use and expansion of this compensation tool. However, the lack of significant data calls for caution regarding rapidly replacing existing compensation tools with this relatively unproven pay.

Therefore, we recommend that the Department of the Navy *continue* to use AIP to fill chronically undermanned billets and identify additional billets at which the AIP pilot program can be targeted. At the same time, however, it is imperative that the DoN gather empirical evidence on the efficacy of AIP and identify the extent to which this compensation tool exceeds, or falls short of, expectations. AIP has the potential to be one of the most powerful compensation tools that the DoN has in its arsenal. Obtaining precise estimates of the effect of AIP will allow the Department to more effectively target this tool and to more effectively fill its billets.

Thrift Savings Pay (TSP) and TSP matching

TSP and TSP matching are only weakly aligned with the Strategic Goal of *Recruiting* and moderately aligned with *Retention*. While TSP offers little *flexibility* in compensation, TSP matching allows the Department of the Navy to target the benefit to skills as it chooses. The DoN does not currently have the ability to adjust the level of matching contributions, however. Both TSP and TSP matching provide greater opportunities for *Strategic Best Value* than the current

military retirement system, although we stress that these are *deferred* benefits, which Servicemembers value less than an equivalent amount of immediate compensation.

Since TSP involves no direct expenditures on the part of the Department of the Navy, we recommend that the DoN *continue* to offer its Servicemembers the opportunity to participate in the program and save/invest for retirement. Defined contribution retirement programs have become increasingly popular in the private sector, and retaining TSP allows the DoN to better compete with the private sector for personnel.

Furthermore, we recommend that the Department of the Navy explore opportunities to *begin to use* TSP matching and to make this compensation tool more *flexible*. For example, if TSP matching could be targeted to members with more than 20 years of service, it has the potential to increase *Retention* of those already vested in military retirement. This would offset some of the disadvantages of the current retirement system. In addition, if the level of matching contributions could vary by critical specialty, the DoN would be more able to manage its workforce with *Best Value*.

Voluntary Separation Pay

Since VSP has not been implemented, there is no empirical literature on the extent to which it helps the Department of the Navy achieve its Strategic Goals, but economic theory predicts that there could be a small, positive effect on *Recruiting* and a modest effect on *Retention*. The goal of VSP, however, is to *Facilitate Transitions* from service. The consensus of the literature is that attempts by other employers to offer separation incentives have been quite successful at achieving this goal. In this respect, VSP represents a significant improvement over the current retirement system since it provides opportunities for members to separate (with compensation) at a point in the career where both the Department of the Navy and the Servicemember feel it is advantageous.

VSP is potentially well aligned with the DoN's Guiding Principles as well. In particular, if the Department of the Navy uses the discretion provided in legislation, it provides a great deal of *Flexibility*. This

compensation tool also has the potential to provide *Best Value*. We stress, however, that the cost-effectiveness of VSP has yet to be demonstrated. There are a number of pitfalls associated with setting the level of VSP; in particular, it is possible that a poorly implemented program could *negatively motivate performance*.

Therefore, we recommend that the Department of the Navy *begin to use* VSP and identify populations to which this compensation tool can be targeted. At the same time, however, it is imperative that DoN gather empirical evidence on the efficacy of VSP as it is implemented. Obtaining precise estimates of the effects of VSP, and identifying any unintended consequences of offering VSP, will allow the Department of the Navy to more effectively target this tool and to more efficiently manage its workforce.

Summary of near-term recommendations

We can disaggregate the compensation tools on which we have focused into three separate categories. First, *we recommend that the Department of the Navy not advocate an increase in or expansion of:*

- Basic pay
- Military housing
- BAH
- Health care
- Retirement pay.

For each of the compensation tools listed above, we also *recommend that the Department of the Navy pursue initiatives to make these tools more cost-effective*. Several options for improving cost-effectiveness have been discussed, and many will require a sustained commitment on the part of the DoN to be implemented.

Second, *we recommend that the Department of the Navy selectively pursue expansion of:*

- Sea pay
- SRB

- EB
- AIP.

For each of the compensation tools listed above, we also *recommend that the Department of the Navy pursue initiatives to make these tools more cost-effective*. Several options for improving cost-effectiveness have been discussed, and the DoN has a fair amount of discretion to independently implement these initiatives.

Third, we *recommend that the Department of the Navy begin to use*:

- TSP matching
- VSP.

Balancing compensation tools in the long term

In the previous subsection, we summarized how individual tools align with the DoN's Strategic Goals and Guiding Principles of compensation, evaluated their relative advantages, and made recommendations for changes in the near term. Our near-term recommendations take into account the environment in which the DoN is currently operating and the potential difficulty of implementing any changes. Also, we recognize that, while some adjustments can be made at the discretion of DoN and are possible under existing laws, others will require inter-Service cooperation and/or congressional approval and may not be practical in the short run.

In this section, we adopt a longer term perspective to draw some lessons from the literature surveyed in the assessment of compensation tools. This longer term perspective indicates general directions in which the military compensation system must be reformed before it can fully meet all of the Strategic Goals and Guiding Principles. Therefore, it is important to keep these long-term lessons in mind even when making changes that are constrained by the current environment and implementation difficulties.

In general, the directions for change described here are not new. In one form or another, researchers, DoD and DoN study groups, and independent commissions have advocated similar reforms since the

advent of the All-Volunteer Force. The arguments for reform frequently come from the military compensation literature and from comparing military compensation packages with what nonmilitary employers offer.

The text that follows will give more detail on selected issues, but first we summarize our long-term recommendations in three bullets:

- The current compensation system is too skewed toward in-kind compensation and benefits—in particular, deferred benefits. This problem has gotten even worse since 1999 because some of the largest sources of growth in military personnel costs have been TRICARE for Life, REDUX repeal, and increased active-duty health-care costs. In 2005, only about 44 percent of a Sailor’s total compensation was cash, while for civilians it ranged from 65 to 80 percent.⁶² Compensation that is not highly visible to new recruits, or even apparent at retention decision points, will not support the goals to *Recruit* and *Retain*. Also, in-kind compensation and benefits are not *Flexible*, and deferred compensation tends not to provide *Best Value* compared with upfront pay. Therefore, reforms should seek to remove this bias.
- Once an optimal mix of cash and in-kind benefits is determined, the in-kind benefits should be as effective as possible (e.g., retirement reform), and as much choice as possible should be offered among different benefits (e.g., cafeteria plans). In this way, the DoN’s benefit package will best align with its guiding principles of being *Flexible* and *Best Value* while *Supporting the Objectives* often met through noncash compensation.
- Within cash pay, the current system has too much pay that is across-the-board and, therefore, does not have the *Flexibility* to meet specific goals. This problem has grown since 1999

62. This estimate comes from [65]. Cash compensation includes RMC, bonuses, allowances, and special and incentive pays, while noncash compensation includes retirement pay, health care, installation-based benefits (including housing), and veterans’ benefits.

because most of the large pay increases have been in basic pay and BAH [65]. Reforms should seek not to eliminate the pay tables but just to lower them as a fraction of total cash compensation. As targeted, nondeferred cash pays become a larger proportion of total compensation, it will enable the DoN to use such tools as SRBs, EBs, AIP, VSP, and quality-based compensation to meet such goals as *Recruit, Retain, Attain High Performance, Assign, Motivate Development, and Facilitate Transitions* in a *Flexible* and *Best Value* manner.

In this part, we first look at the balance between cash and noncash elements of the compensation package. We apply some general rules drawn from the literature survey to determine how in-kind benefits could be better aligned with the DoN's Compensation Strategy. Once we have examined in-kind benefits, we turn to the elements of cash compensation. We outline cash pays that would complement the in-kind benefits to form a compensation system that would align with all the Strategic Goals and Guiding Principles.

Balancing cash and in-kind compensation and benefits

In-kind compensation and benefits are by nature *Inflexible*; that is, they constrain the consumption choices of the recipients. Since people have different tastes and circumstances, these restrictions will reduce the value of in-kind benefits to some recipients. For example, onbase recreational facilities and shopping are worth little to people who live and work far from any base. Retirement pay and retiree health-care benefits may be worth little to new recruits. Also, because providing the same amount of cash compensation as the cost of the in-kind benefit allows the Servicemember to choose how to spend the money, upfront pay provides *Best Value*. Sometimes in-kind benefits are better, however, either because of economic incentives or because in-kind benefits *Support other Objectives*.

In this subsection, we will consider when the DoN's Strategic Goals and Guiding Principles could be better met through the noncash tools we assessed. We provide a theoretical model to make decisions regarding whether cash or noncash tools are best. In cases where in-kind benefits do make sense, we will provide long-run recommendations for more closely aligning the tools with the DoN Compensation Strategy.

Theoretical model⁶³

In-kind compensation and benefits may align better with the compensation strategy when:

- DoN can provide the benefit to all Servicemembers more cheaply than they could purchase it individually (e.g., health care).
- The goods or services screen for or maintain desirable characteristics in Servicemembers (e.g., health care, retirement pay).
- DoN cares about the composition of the “consumption bundle” (e.g., health care, bachelor housing, retirement pay).

Once the principles above have been followed to determine when in-kind benefits are warranted, the following strategies should be pursued:

- Because cash pay is more *Flexible* and provides *Best Value*, convert any in-kind benefits that cannot be justified by the above criteria into cash pay (e.g., family housing).
- For the remaining in-kind compensation and benefits, increase *Flexibility* by offering as much choice as possible (e.g., cafeteria plans for health care and retirement plans).
- Make sure the benefit programs are as *Best Value*, well managed, and well aligned with other goals and principles as possible.

Bachelor housing

We argued for getting DoD out of the family housing business because it does not meet any of the theoretical criteria for in-kind benefits. A possible rationale for keeping onbase housing for junior, bachelor personnel, however, is that the Services care about the so-called consumption bundle of these Servicemembers. The military believes that it can best provide stewardship and acculturation for young Servicemembers, thus improving readiness and helping to *Attain High Performance*, by requiring them to live on base.

63. The material in this section draws heavily from [12] and [13].

If the DoN decides to continue to require that young Sailors live in barracks, several steps can be taken to better align this policy with its compensation strategy. Surveys have shown that a very small percentage of new Sailors *want* to live in bachelor housing, so care should be taken to minimize any negative effects of this tool on *Recruiting*. The housing should be made as similar as possible to what similar civilians would live in, within reasonable cost limits. Recognizing the explicit goal of acculturation and stewardship of new Sailors, the requirement to live on base should be applied to as few Sailors as possible.

Reforming retirement pay⁶⁴

The distinctive purpose of a retirement benefit is to induce personnel to separate voluntarily, and on good terms, when it is in the best interest of the Services that they do so. Military technology, missions, and occupations used to be such that the Services designed their retirement benefit to make sure that people separated early. The retirement benefit, then, falls under the second justification for providing in-kind rather than cash compensation: maintaining desirable characteristics in Servicemembers. In particular, the unique structure of the Services' retirement pay is designed to improve readiness and help *Attain High Performance* by maintaining a young force. Retirement pay also fits another justification for in-kind benefits since the Services want to provide a competitive compensation package, which includes a comfortable retirement for Servicemembers. There are, therefore, strong arguments for the Services to provide some form of retirement benefit. In fact, almost all large private-sector employers provide retirement benefits [59].

As we have discussed, however, the current military retirement system has serious drawbacks. Retirement reform is a perennial issue and, as we have noted, the current system is firmly entrenched. Nevertheless, there is no doubt that reform is needed. Some of the ways the current system works against the goals and principles follow:

64. Most of the material in this section was taken from [46] and [47]. These references also give more detail on problems with retirement pay, how retirement pay reforms should be structured, and why it has been so difficult to pass retirement pay reforms.

- As a deferred benefit, its value to *Recruit* or to *Retain* people in their early years of service is limited. This is reinforced by the lack of early vesting.
- The pull and push effects of the 20-year cliff-vesting system make *Facilitating Transitions* during 10 to 20 YOS difficult.
- Its *Inflexible* 20-year cliff vesting drives the experience profiles for YOS 10 to 20 to be similar across occupations, Services, and outside circumstances. It is only by coincidence that a profile defined by the retirement system will match the needs of a given occupation.
- Given that YOS profiles differ by occupation, a retirement system that does not enhance recruiting and retention in the early years and that inflexibly locks in retention in all occupations from YOS 10 on cannot possibly be *Best Value*.

An effective retirement system should support two separate objectives: allowing personnel to save for old age (providing a competitive compensation package in an *All-Volunteer* environment) and allowing the Services to manage separations from the force. Reform might be easier, then, if the system were divided into two distinct tools and the purpose of each was explicitly recognized.

While it is intended to do so, today's system does not help people save for old age very well; in this respect, the retirement benefit is not competitive in an *All-Volunteer* force. It would perform better if Servicemembers were vested earlier in an old-age pension that could be either the current defined benefit or a defined contribution more similar to those offered in the private sector (or some combination). The earlier vesting would allow portability to other jobs and increase its appeal to recruits who do not plan to stay for 20 years. The old-age part of the system would be an entitlement that personnel earn proportionally to the service that they render. The benefits would be available to be withdrawn at a standard retirement age, such as from 60 to 65.

The second purpose of the retirement system is to improve force management by enabling the Services to separate members on good terms when it is in their interest. The current system also falls short

on this goal to provide a good *Transition* tool. Since the 20-year cliff vesting drives transition behavior for almost everyone after 10 years of service, not only is it an *Inflexible* transition policy but it makes it very hard to introduce new policies to increase flexibility in career lengths. In other words, without retirement reform, significant innovations in military career length or experience profiles are not likely to be feasible.

A *Flexible* force management tool would give each Service more discretion to shape experience profiles by skill, changing circumstances over time, and even individual performance. The separation payments might take the form of an annuity (as under the current system) or a lump-sum cash payment. But because they are intended to be a flexible force management tool, the separation payments are explicitly not an entitlement.

Reference [46] reviews the literature on military retirement reform, including the proposals of several past study commissions, and then summarizes features that best meet the criticisms leveled at the old retirement system. The author points out that some features, such as very early vesting, make plans even more expensive than today's military retirement costs, so tradeoffs would have to be made. Some of the common features include:

- Separate the old-age benefit and the force management tool.
- The old-age benefit would be vested earlier, at 10 years or before, and would be paid starting at around age 60. It would be either defined benefit or defined contribution. Some options mentioned were one similar to the Federal Employee Retirement System (FERS) or government TSP contributions at a 50-percent matching rate up to 5 percent of pay.
- The force management tools still have to be designed but could consist of a system of (a) transition benefits for all personnel who serve past a specified career gate and (b) exit payments begun at career points that may vary by skill, Service, and officer-enlisted status. This system could place the Retirement pay, TSP, TSP matching, VSP, and other retirement and force-shaping compensation tools in their proper roles in order to meet the two goals of providing for retirees and having a flexible, force-management tool.

Aligning the health-care benefit

As we discussed in our short-run recommendations, there are strong arguments for providing a health-care benefit, and it can help with the Strategic Goals of *Recruiting*, *Retention*, and *Facilitating Transitions*. When evaluated against the Guiding Principles, however, the benefit seems to be less well aligned. First, it is an across-the-board, *Inflexible* benefit. Second, because its generosity does not always provide the best incentives and because it is heavily weighted toward deferred compensation, it is not *Best Value*.

The previous section mentioned some initiatives that could be undertaken in the short run to improve the cost-effectiveness and flexibility of the health-care benefit. Given more time, inter-Service cooperation, and legislative changes, the short-run changes can be taken even further. Some cost-saving policies that private-sector programs and the Federal Employees Health Benefit (FEHB) program include are:

- Increase annual premiums, deductibles, and copays. These not only help to share costs but also can provide incentives for more optimal use of health-care services.
- Make retiree health-care plans, and especially TRICARE for Life, more in line with the benefits that private-sector and civil service retirees receive. The size and growth of these plans has further skewed a system that was already too heavily weighted toward deferred compensation and benefits. In a time when most large employers are conserving on retiree health care, TFL is enormously costly and is not well aligned with the compensation goals and principles.
- Introduce cafeteria plans as a way to make health-care plans more *Flexible* and *Better Values*.

Cafeteria or flexible benefit plans

The main reason that cash compensation is preferred to in-kind benefits (in the absence of compelling arguments otherwise) is that in-kind benefits constrain the consumption choices of the recipients. People have different tastes and circumstances, so these restrictions will reduce the value of in-kind benefits to some recipients. It follows,

then, that if the employer can provide in-kind benefits in a way that allows people to retain some decision-making authority over their consumption choices, the value of the in-kind benefits will be higher. This is the motivation behind cafeteria or *Flexible* benefit plans, which are becoming more prevalent with private-sector employers.⁶⁵

Cafeteria (or flexible benefit) plans, allow employees to choose from a variety of benefits and/or benefit levels and keeping extra cash. In this way, employees can exchange benefits that they consider less valuable for others better suited to their needs [66]. A notional cafeteria plan would provide each Servicemember with a fixed amount of money to buy a variety of benefits. Any money left over would be received as cash. For example, families could choose a set of “family-friendly” benefits; people who live near bases could purchase memberships to get discounts at the commissaries and recreational facilities. And younger, unmarried members, who are less interested in saving for retirement and have less need for health care, could pay for less expensive policies and keep more cash compensation.

It is important to realize that the plan can be designed so that the DoN restricts Servicemembers’ choices to include minimums of some benefits. For example, the Services could require every member to choose at least a high-deductible health plan and some level of retirement savings.

The types of choices that are offered in most private-sector flexible benefit plans are quite simple. For example, less than 20 percent of workers in large firms are offered only one health care plan. The other 80 percent can choose from an array with different coverage, enrollment fees, deductibles, and copays. Retirement plans within a firm are usually standard, but workers can choose to contribute

65. Cafeteria benefit plans, or flexible benefit plans, should not be confused with Flexible Spending Accounts (FSAs) or consumer-directed health savings accounts. Both are described in more detail in the text that follows. In brief, however, the former allows the employee to choose which set of benefit programs he or she will elect. FSAs, or health savings accounts, may be one of the programs offered and may shift some of the risk of health expenses back on the consumer.

different amounts, sometimes with employer matching arrangements. Other choices sometimes include different levels of long-term disability insurance, dental insurance, and so on.

An emerging trend in the private-sector benefits and health policy communities is *consumer-directed* health plans—particularly arrangements that combine a high-deductible health plan with a personal or health savings account. In the 2004 Kaiser survey, about 6 percent of firms (employing about 13 percent of covered workers) say that they are “very likely” to offer this type of arrangement in the next 2 years; another 21 percent (employing about 26 percent of covered workers) report being “somewhat likely” to do so. This level of interest suggests that these plans will continue to become more popular. Consumer-directed, or consumer-driven, health plans are intended to give enrollees a financial stake in their health care and to encourage them to make informed choices about their care and treatment [59].

Cafeteria plans, however, are a long way off for the military. There are significant cost and culture issues, as well as resistance from communities within the DoN. Special legislation would be required to enact such a large change and to specify which benefits could be included under a flexible benefit plan [12]. If an attractive cafeteria plan can be designed and implemented, though, it will make the benefits portion of the compensation package considerably more *Flexible*. In addition, if people are allowed the freedom to choose the **Retirement** and **Health-care** policies that appeal to them most, the goals of *Recruiting* and *Retaining* good people will be met with *Strategic Best Value*.

Getting the correct mix of cash pays

Reducing the share of in-kind compensation and benefits in total compensation will, in itself, increase the visibility of the compensation package. One study found that most private-sector employees believe that their non-cash benefits are worth only about 70 percent of what they cost their employers to provide [67]. Eliminating this disparity would help with the *Recruit* and *Retain* goals. Reducing the emphasis on deferred benefits will especially help with *Recruiting* and *Retaining* people earlier in their careers in a *Best Value* manner. Finally, in-kind compensation and benefits tend to be *Inflexible*; reducing

their share will leave more room for flexible, targeted pays that can help meet other compensation goals.

Within cash pay, there is no theoretical reason why basic pay, or some form of RMC, should not remain the core of the compensation system. The important thing is that it would have to be a low enough fraction of total cash pay that there is room for other substantial pays, such as occupational and assignment differentials. Some of the particular long-term reforms we advocate for the tools we assessed are discussed below.

Basic pay

Basic pay would be retained, but as a smaller fraction of total cash compensation so that there is more room for targeted pays. The role of basic pay would then be to support the principle of an *All-Volunteer* force that is *Recruited* and *Retained* by “fair and equitable” compensation. The variation by rank and length of service and yearly congressional adjustments provide some, but limited, *Flexibility*. Linking pay raises to time in grade instead of time in service would make them better at *Attaining High Performance*.

Some researchers have advocated multiple pay tables to accommodate different types of skills or occupations. For example, the DoN could have one pay table for people on a career track to become senior leaders and another for technical occupations in which the DoN wants to encourage long careers but without as many promotions. Other researchers argue that expanded use of the existing warrant officer pay table would suffice for this purpose. Alternatively, providing occupational differentials through the accession and retention bonuses would increase flexibility even more.

It is also possible that, in the long run, pay tables will include all of RMC; in other words, BAH/BAS and the tax advantage will no longer exist separately. If the in-kind housing benefit is monetized and the dependency differential is removed, BAH would be just another cash pay that varies by paygrade and location. Even if the DoN wanted to, it will become more difficult to justify this as a housing allowance and to maintain its tax advantage. Furthermore, as we have discussed, the location differential in BAH is a relatively inefficient assignment

incentive compared with AIP. So, it may be best for the Services just to have one basic pay, rather than RMC, which combines all four components. Elements of RMC, such as the tax advantage, are not readily apparent to all Servicemembers as part of their compensation package. That is, having many different types of compensation, some non-cash, makes the total compensation package less transparent and harder to compare with civilian counterparts [15]. Converting BAH and BAS to cash pay and eliminating the tax advantage would make total compensation easier for Servicemembers to understand, and anything that makes pay more visible makes it a *Better Value*.

Accession and retention bonuses (SRB and EB)

Our discussion of SRBs indicates that this is a powerful tool that is already closely aligned with the Goals and Principles of the Compensation Strategy. A few improvements would make it even more so—notably, linking payment amounts to performance measures. EBs also have the potential to be a good tool.

In the area of occupational bonuses, then, the Services do have a good model in the enlisted SRB program; they just do not always have the flexibility and legislative authority to run these programs effectively. Also, accession bonuses are not as well developed. Many officer communities and some enlisted communities have bonus programs that essentially offer higher pay throughout one's career. For officers, there is a separate bonus for each community, and they seem to be competing with each other.

In general, legislation for occupational bonus programs should be structured to give the Services the maximum flexibility possible in the range of bonus amounts and in how they choose to administer the program. Discretion should be given to target bonuses along as many dimensions as possible, including occupation, point in career (accession, reenlistment, continuation of contract), and quality. The latter might take the form of linking the amount of the payment to rank.

If accession and retention bonuses are designed in this way and funded adequately to form a substantial proportion of total compensation, they could help to attain the following goals and principles:

Recruit, Retain, Attain High Performance, Motivate Development, All-Volunteer, Flexible, and Best Value.

Assignment bonuses (AIP and Sea Pay)

When discussing the Strategic Goal of *Assignment*, it is necessary to address the role of Servicemember choice. Under the Guiding Principles, an optimal compensation system would provide incentives for members to voluntarily choose to do what the Services desire. The military as an institution has to have a very clear structure and clear sense of the meaning of an “order.” No one challenges that principle, yet that culture has crept into areas where individual preferences and choices should be taken into account. That is, there are certain decisions in which members may value having a choice and for which the military has no reason related to its mission to deny choice. Furthermore, direct competition with the private sector has increased the need to provide opportunities for Servicemembers to exercise choice.

The military offers a host of special pays that are available for those who take on the jobs that are most difficult to fill. In addition, people are sometimes offered “higher valued” assignments as a reward for reenlisting or taking a difficult assignment first. In the Navy, this could mean going ashore instead of serving at sea. The Navy’s use of **Assignment Incentive Pay (AIP)** has shown early promise and is an innovative example of a Service allowing its members to express their preferences and be compensated for them. Given that AIP proves to be effective, we recommend that it be expanded and used to replace the awkward, complex, and overlapping system of pays, allowances, promises of good follow-on assignments, and involuntary orders that are currently used to fill billets. This old system of compensation tools includes **Sea Pay**.

1. The assignment incentive, or distribution, pay system should be designed to give each Service and community the maximum possible flexibility to administer its own program. Also, there should be discretion to target the bonuses as finely as possible, by occupation, location, type of duty, moving expense, experience level, and perhaps even adding some quality measure to the formula for determining the winning bidder.

If assignment bonuses are designed in this way and funded adequately to form a substantial proportion of total compensation, they could help to attain the following goals and principles: *Assign, Recruit, Retain, All-Volunteer, Flexible, and Best Value*.

Summary of long-term recommendations

In summary, we can make six main recommendations for a long-term compensation strategy. These recommendations address only the compensation tools we assessed in this paper. Similar conclusions could be made for tools with the same features. Our recommendations follow:

- Unless there is a compelling reason to maintain a tool as in-kind compensation or benefit, convert it to cash pay.
 - There is no need for the DoN to be directly involved in the business of providing **family housing**. We recommend that it continue to pursue its current policy of privatizing its current housing stock and not build any new housing.
 - The DoN should only provide **bachelor housing** for the most junior members where the motives of acculturation and mentorship apply.
- In particular, the compensation system is too skewed toward deferred benefits, such as generous **retirement pay**, retiree **health care**, and now TRICARE for Life. The DoN should seek to remove this bias by supporting the repeal of increases to these programs or, at a minimum, not pushing for further increases.
- The DoN should support **retirement pay** reform by advocating dividing the system into two parts. The first would be an old-age pension, perhaps a **TSP matching** instrument with vesting at 5 to 10 YOS and payouts beginning at age 60. The second would be a flexible force management tool, such as **VSP**.
- The DoN can ensure that its **health-care** and **retirement** benefit plans are as flexible as possible by offering cafeteria plans.

- Within cash pay, because the current system has too much pay that is across-the-board, it does not have the flexibility to meet specific goals. Reforms should not seek to eliminate the combination of **basic pay** and **BAH** but just to lower them as a fraction of total cash compensation.
- As targeted, nondeferred, cash pays become a larger proportion of total compensation, it will give the DoN more discretion to apply its guiding principles to meet its goals. Many of the pays needed to meet these goals are already available, while others must still be created:
 - Occupational differentials can be set using enlistment and retention incentive pays, such as **SRBs** and **EBs**. If these are a larger part of compensation and have more flexibility, the DoN's ability to Recruit and Retain people in different specialties will be enhanced.
 - Assignment and tour lengths can be set voluntarily using **AIP**. In general, fewer pays that can be adapted to a broader variety of circumstances will be preferable to a complicated mix of pays. But in some circumstances a special pay, such as **Sea Pay**, will be needed.
 - *Attaining High Performance*, *Rewarding Exceptional Performance*, and *Motivating Development* will be addressed through some form of **quality-based compensation**. There are different options for increasing the performance dimension of military pay. We have placed all of these potential tools in long-term recommendations because although they are well aligned with the DoN's goals and principles, none of them are currently in place and none have been tested.
 - Linking basic pay to time in grade instead of time in service was discussed in the previous sections on basic pay and is illustrated further in appendix B. This would provide an additional incentive to perform because faster promotions would create a permanent differential in compensation.

- Linking SRB installment payments to rank at the time of payment would reward people who receive promotions after they reenlist.
- All other options involve extra payments or rewards that are based on a quality measure. The difficulty here is establishing an objective and quantitative measure of quality.

Appendix A: Major compensation tools available to the DoN

Regular Military Compensation

- Basic Pay
- Basic Allowance for Housing
- Basic Allowance for Subsistence
- Tax Advantage

Accession and Retention Bonuses

Accession bonuses

- Enlistment (enlisted)
- Nuclear Career Accession (officer)
- Medical Officer Accession (Dental, Nurse Corps, and Pharmacists)
- Critical Skills Accession for Selected Reserve Officers

Reenlistment/retention/continuation bonuses

- Selective reenlistment bonus (enlisted)
- Location-specific reenlistment bonus
- Critical skills retention bonus
- Aviation Officer continuation
- Nuclear Officer continuation
- Surface Warfare Officer continuation
- Special Warfare Officer continuation
- Conversion bonus for Selected Reserve
- Multiyear Special Pay for health care professionals

Special and Incentive Pays

Career Incentive Pays

- Aviation Career Incentive Pay
- Nuclear Career Annual Incentive
- Various Special, Incentive, Board Certification Pays and Bonuses for Medical, Dental, Nurse, Pharmacy, and Optometry

Distribution incentive pays

- Sea pay
- Assignment Incentive Pay
- Overseas Tour Extension Incentive Pay
- Hardship Duty Pay–Mission and Hardship Duty Pay–Location
- Special Duty Assignment Pay
- Submarine Duty Pay
- Hostile Fire/Imminent Danger Pay

Other special and incentive pays

Hazardous duty pays (e.g., Aerial Flights, Flight Deck, Parachute Duty, Diving Duty, Demolition Duty)

Pays that provide incentives or extra compensation for acquiring skills or taking on additional responsibilities (e.g., Foreign Language Proficiency Pay, Responsibility Pay for officers, and Bonuses for Enlisted Supervisors)

Retiree Compensation

Retirement pay

Retiree health care

Career Status Bonus

Thrift Savings Plan

Miscellaneous Pays and Allowances

Family Separation Allowance

Cost-of-Living Adjustments

Clothing and Uniform Allowance

Quality-of-Life Programs

Health care

Housing

Shipboard berthing

Bachelor quarters

Family housing

Morale, Welfare and Recreation

Fleet and Family Support

Child Development / Youth Programs

Commissaries/exchanges

Subsistence

Other Existing Compensation Tools

Promotion

Training

GI Bill benefits

Health Professions Loan Repayment Program

Navy College Fund

Thrift Savings Plan matching

Military education

Choice of assignments (assignment to high priority units for Reservists)

Additional pay for those with dependents

Involuntary Separation Pay

Special Compensation for Disabled

Survivor benefits: e.g. Survivor Benefit Plan, Death Gratuity

Veterans' benefits

Other Potential Compensation Tools

Voluntary Separation Pay

Quality-based compensation

Explicit pay-for-performance

Linking anniversary payments to rank at anniversary date

Linking bonuses to individual quality

Linking basic pay to time-in-grade

Appendix B: Linking basic pay with time in grade

Since linking basic pay with time in grade is a relatively new concept, it is instructive to provide an example of how this system might work. We stress that this is a *notional* example. The hypothetical amounts of basic pay that we use serve to illustrate the general concept and are not recommendations on the magnitude of compensation by time in grade.

Consider two O-4s, one with 14 years of service, the other with 15 years of service. Table 1 reproduces a portion of the current basic pay table that applies to these Servicemembers. Given the current structure of basic pay, both would receive \$5,766.60 per month. Suppose that the O-4 with 14 years of service was promoted to O-5, while the one with 15 years of service was not. The promoted person would earn \$6,048.60 per month, while the other would continue to earn \$5,766.60. In other words, the O-4 promoted to O-5 would earn 4.9 percent more than the one who remained an O-4.

Table 1. Portion of the 2005 basic pay table for commissioned officers

Paygrade	More than 14 years of service	More than 16 years of service
O-5	\$6,048.60	\$6,431.10
O-4	\$5,766.60	\$5,872.20

Now suppose that, after 12 months, the person who was not promoted finally receives a promotion to O-5. Since this person now has 16 years of service, he would earn \$6,431.10 per month as the result of his promotion and increase in years of service. However, the person who had been promoted a year earlier would continue to earn only \$6,048.60. In other words, he now earns 6 percent *less* than the other O-5, even though he was promoted faster; his relative increase in compensation was only *temporary*.

Linking basic pay to time in grade would make this relative increase in compensation *permanent*. Again, consider two O-4s, one with 14 years of service, the other with 15 years of service. In addition, we now assume that these two Servicemembers have been O-4s for the same number of years, and that the basic pay commensurate with this time in grade is \$5,766.60 per month.

Suppose that the O-4 with 14 years of service was promoted to O-5, while the one with 15 years of service was not. In addition, assume that basic pay is linked to time in grade as described in table 2. The promoted person would earn \$6,048.60 per month, while the other would continue to earn \$5,766.60. In other words, the person promoted to O-5 would earn 4.9 percent more than the one who remained an O-4.⁶⁶

Table 2. Portion of a *notional* basic pay table linked to time in grade

Paygrade	<= 1 year as an O-5	Over 1 year as an O-5
O-5	\$6,048.60	\$6,431.10

Now suppose that, after 12 months, the person who was not promoted finally receives a promotion to O-5. He now has 16 years of service, but, as a new O-5, he would earn only \$6,048.60 per month as a result of the promotion. In contrast, the person who had been promoted a year earlier would see an increase in basic pay to \$6,431.10 per month. Even though he has fewer years of service, his relatively fast promotion creates a *permanent* increase in relative compensation.⁶⁷

66. To this point, the relative differences in compensation are identical to those in our example using the existing basic pay table.

67. This differential in compensation would persist unless the person promoted later was able to “catch up” and subsequently promote to the next paygrade at the same time.

Appendix C: Matrix of alignment of compensation tools with goals and principles

Goals		Principles	
		Basic Pay	
Recruit	Yes	All Volunteer	Yes
Retain	Yes: especially at 1st reenlistment	Flexible	No: Congress can adjust levels, but cannot vary by service or occupation
Attain High Performance	Somewhat: depends on the increase in basic pay associated with promotion and length of service	Best Value	Weakly: Not targeted, but better than benefits
Reward Exceptional Performance		Support Objectives	Yes
Assign			
Motivate Development			
Faciliate Transitions	Weakly: by flattening out at higher YOS		

Goals		Principles	
		BAH	
Recruit	Mixed: skewed toward members w/dep	All Volunteer	Yes
Retain	Mixed: Skewed toward members w/dep	Flexible	No: dep diff should go and location adjustment is weak
Attain High Performance	No: only by reinforcing pay table plus dep diff can demotivate. May improve readiness	Best Value	Mixed: tax advantage saves DoN money, but shifts to taxpayer. In long run more deps are costlier
Reward Exceptional Performance		Support Objectives	Weakly
Assign	Weakly: helps with assignments to high housing cost areas		
Motivate Development			
Faciliate Transitions			

Goals		Principles	
		Housing	
Recruit	No: recruits prefer off-base housing	All Volunteer	No: BAH is better
Retain	Mixed: may hurt bachelors, helps large families	Flexible	No: the stock is fixed
Attain High Performance	Mixed: may hurt bachelors, helps large families. May improve readiness	Best Value	No: military building and administering housing is costly
Reward Exceptional Performance		Support Objectives	Weakly
Assign			
Motivate Development			
Faciliate Transitions			

Goals		Principles	
		Health care	
Recruit	No: young pop would prefer more choices, more upfront comp	All Volunteer	Yes
Retain	Yes: effects get better with more deps and older pop, more choice could help	Flexible	No: services have no discretion
Attain High Performance	Yes: taking care of Sailors, readiness	Best Value	No: pooling risks is cheaper, but TFL, no cost-sharing, etc makes TRICARE too costly
Reward Exceptional Performance		Support Objectives	Yes
Assign	May restrict to good access areas		
Motivate Development			
Faciliate Transitions			

Goals		Principles	
		Retirement pay	
Recruit	No: overall a large portion of pay, but too heavily discounted for new recruits	All Volunteer	Yes
Retain	Incorrectly: drives across-the-board retention and transition patterns for YOS 10-30 years	Flexible	No: doesn't support variable career lengths, innovative career paths, exit and entry
Attain High Performance		Best Value	No: can't target force management element by service, skill, time, etc
Reward Exceptional Performance		Support Objectives	No
Assign			
Motivate Development			
Faciliate Transitions	Incorrectly: drives across-the-board retention and transition patterns for YOS 10-30 years		

Goals		Principles	
		TSP	
Recruit	Weakly: deferred compensation, but could be better than current retired pay	All Volunteer	Yes
Retain	Mixed: provides additional benefits, but may reduce pull of 20-year cliff	Flexible	No: flexibility only from members choice
Attain High Performance		Best Value	Yes: no expenditures required
Reward Exceptional Performance		Support Objectives	Yes
Assign			
Motivate Development			
Faciliate Transitions			

Goals		Principles	
		VSP	
Recruit	No: possible very small but not main goal	All Volunteer	Yes
Retain	Weakly: if VSP available to those DoN wants to continue, retention will suffer	Flexible	Yes: service discretion within cap by occupation, YOS, time, performance, etc.
Attain High Performance	Weak possibility of negatively affecting performance	Best Value	Yes: targeting minimizes rents, but must be set properly
Reward Exceptional Performance		Support Objectives	Yes
Assign			
Motivate Development			
Faciliate Transitions	Yes: purpose is to provide flexible, market-based incentive for transition out of force		

Goals		Principles	
		TSP matching	
Recruit	Weakly: deferred comp., but could be better than current retired pay	All Volunteer	Yes
Retain	Yes: purpose of retirement system is retention and transition	Flexible	Somewhat: can target skills, but cannot adjust level of matching contributions
Attain High Performance		Best Value	Mixed: can be targeted to reduce rents, but deferred is valued less than upfront compensation
Reward Exceptional Performance		Support Objectives	Yes
Assign			
Motivate Development			
Faciliate Transitions	Yes: purpose of retirement system is retention and transition		

Goals		Principles	
SRB			
Recruit	Somewhat: little empirical evidence because main purpose is retention	All Volunteer	Yes
Retain	Yes	Flexible	Yes: vary by skill and time but small proportion of total pay
Attain High Performance	No: not used as performance bonus	Best Value	Weakly: if retention is already too high, could be more if lump sum
Reward Exceptional Performance	No: not used as performance bonus	Support Objectives	Yes
Assign			
Motivate Development			
Faciliate Transitions			

Goals		Principles	
Sea pay			
Recruit	Weakly: no empirical evidence	All Volunteer	Yes
Retain	Weakly: Evidence of a positive effect, but SRBs are a better retention tool	Flexible	Weakly: sea pay reform is attempting to increase limits and add skill differentials
Attain High Performance	Weakly: may improve motivation in sea billets and increase readiness	Best Value	Weakly: targeted to sea duty but not by skill or preference for sea duty
Reward Exceptional Performance		Support Objectives	Yes
Assign	Yes: there is evidence that sea pay generates more voluntary time at sea		
Motivate Development			
Faciliate Transitions			

Goals		Principles	
EB			
Recruit	Weakly: may channel recruits into ratings rather than expand markets	All Volunteer	Yes
Retain	No: May reduce retention: higher EBs imply need for higher SRBs	Flexible	Yes: varies by skill, time
Attain High Performance		Best Value	Weakly: depends on channeling vs. market expansion
Reward Exceptional Performance		Support Objectives	Weakly
Assign			
Motivate Development			
Faciliate Transitions			

Goals		Principles	
AIP			
Recruit	Weakly: not major purpose	All Volunteer	Yes
Retain	Yes: can be targeted at individuals making reenlistment decisions	Flexible	Yes: market-based pay changed by service for location, tour length, etc.
Attain High Performance	Somewhat: by being in positions you value	Best Value	Yes: targeted by hard-to-fill, location, tour length, job app to minimize "rents"
Reward Exceptional Performance		Support Objectives	Yes
Assign	Yes: by market-based monetary incentives		
Motivate Development	Somewhat: by greater assurance of future positions		
Faciliate Transitions			

Goals		Principles	
Quality-based compensation			
Recruit	Yes: individuals most willing to work productively will be most interested in service	All Volunteer	Yes
Retain	Yes: individuals most willing to work productively will be most interested in service	Flexible	Yes
Attain High Performance	Yes	Best Value	Yes
Reward Exceptional Performance	Yes: productivity and quality are measured accurately	Support Objectives	Yes
Assign			
Motivate Development	Yes		
Faciliate Transitions	Weakly: lowest-performing people would get less pay		

Appendix D: Summary of near- and long- term recommendations for compensation tools

Table 3. Summary table

Current tool	Recommended reforms		Ideal tool
	Near term	Long term	
Basic Pay	Hold the line Tie to time in grade vs. length of service	Reduce share of across-the-board compensation	Smaller share of total compensation, but more performance based
BAH	Hold the line Continue to pay average out-of-pocket costs for families in civilian housing	Eliminate BAH in favor of more flexible AIP AIP incorporates location-specific differences in cost of living without dependency differential or tax advantage	AIP
Military housing	Push back on Privatize existing family housing stock Provide bachelor housing only for most junior personnel	Maintain and replace bachelor housing as necessary	No DoD-owned family housing Minimal barracks
SRB	Selectively pursue expansion of	Increase share of targeted compensation Introduce quality dimension	Larger share of total compensation
EB	Selectively pursue expansion of	Increase share of targeted compensation	Larger share of total compensation
Sea pays	Selectively pursue expansion of	Eliminate sea pay in favor of more flexible, better value AIP AIP incorporates relative preferences for sea duty	AIP
AIP	Selectively pursue expansion of Gather empirical evidence on its efficacy	Increase share of targeted compensation Replace complex system of distribution and assignment pays with AIP	Larger share of total compensation AIP as sole assignment incentive pay

Table 3. Summary table

Current tool		Recommended reforms		Ideal tool
Retirement pay	Push back on Also, use other tools that mitigate the weaknesses of current system (e.g. TSP matching, VSP)	Support retirement reform, with distinct old-age pension (e.g., earlier vesting at 5 to 10 years of service and payouts beginning at age 60) and force management (e.g., VSP) components		Portable, vested pension plus a flexible force management tool
TSP	Continue to use	Continue to use		Integrated into reformed retirement pay, possibly as financial instrument for portable, vested pension
TSP matching	Begin to use	Coordinate use of TSP matching with ongoing retirement reform		Integrated into reformed retirement pay
Health care	Push back on Seek ways to make system more cost-effective and flexible (e.g., annual premiums, deductibles and copays) Begin to work toward the repeal of TRICARE for Life Conduct pilot program with cafeteria-style benefits program	Introduce cafeteria-style benefits program, incorporating lessons learned from pilot programs Repeal TRICARE for Life		Smaller share of total compensation Flexible health-care benefit that provides best value
VSP	Begin to use	Coordinate use of VSP with ongoing retirement reform		Integrated into reformed retirement pay, possibly as part of force management component
Quality-based compensation	Begin to research the use of	Introduce quality dimension into compensation		Compensation helps to attain high performance, reward exceptional performance, and motivate development

References

- [1] Office of the Secretary of Defense. *Military Compensation Background Papers*. 6th ed. Washington, DC: United States Government Printing Office, May 2005 (http://www.loc.gov/rr/frd/pdf-files/Military_Comp.pdf)
- [2] Department of the Navy (ASN(M&RA)), *Naval Personnel Task Force. A Strategic Human Resource Management System for the 21st Century*, Oct 2000
- [3] Office of the Under Secretary of Defense for Personnel and Readiness. *The Report of the Ninth Quadrennial Review of Military Compensation, Volume 1*. Washington, DC: United States Government Printing Office, Mar 2002
- [4] John Warner and Beth Asch. "The Economics of Military Manpower." In K. Hartley and T. Sandler (eds.), *Handbook of Defense Economics, Volume 1*. New York: Elsevier Science, 1995 (pp. 347-398)
- [5] Matt Goldberg. *A Survey of Enlisted Retention: Models and Findings*, 2001 (CNA Research Memorandum D0004085)
- [6] Michael Hansen and Jennie Wenger. "Is the Pay Responsiveness of Enlisted Personnel Decreasing?" *Defence and Peace Economics* 16(1), Feb 2005, 29-43
- [7] Martha Koopman et al. *Compensation Strategy for the Future Force*, Sep 2000 (CNA Research Memorandum D0002082)
- [8] Beth Asch and John Warner. *A Theory of Military Compensation and Personnel Policy*, 1994 (RAND Report MR-439-OSD)
- [9] Michael Hansen. *Compensation and Enlisted Manning Shortfalls*, Sep 2000 (CNA Research Memorandum D0001998)

- [10] Andrew M. Seamans. *Housing Requirements and Policy: An Interim Report*, Aug 2003 (CNA Annotated Briefing D0008430.A2)
- [11] Paul F. Hogan. "Overview of the Current Personnel and Compensation System." In Cindy Williams (ed.), *Filling the Ranks: Transforming the U.S. Military Personnel System*. Cambridge: The MIT Press, 2004
- [12] Carla Tighe Murray. "Transforming In-kind Compensation and Benefits." In Cindy Williams (ed.), *Filling the Ranks: Transforming the U.S. Military Personnel System*. Cambridge: The MIT Press, 2004
- [13] Richard J. Buddin. *Building a Personnel Support Agenda: Goals, Analysis Framework and Data Requirements*, 1998 (RAND Report MR-916-OSD)
- [14] Joyce Wessel Raezer. "Transforming Support to Military Families and Communities." In Cindy Williams (ed.), *Filling the Ranks: Transforming the U.S. Military Personnel System*. Cambridge: The MIT Press, 2004
- [15] General Accountability Office. *DoD Needs to Improve the Transparency and Reassess the Reasonableness, Appropriateness, Affordability, and Sustainability of Its Military Compensation System*, July 2005 (GAO Military Personnel Report GAO-05-798)
- [16] Jennie W. Wenger and Apriel K. Hodari. *Does School Quality Influence Housing Choices of Navy Personnel?* Dec 2002 (CNA Research Memorandum D0007150.A2)
- [17] Richard Buddin et al. *An Evaluation of Housing Options for Military Families*, 1999 (RAND National Defense Research Institute Report MR-1020-OSD)
- [18] Andrew M. Seamans. *Increased Allowances, Unit Upgrades, and the Demand for Bachelor Housing*, May 2002 (CNA Research Memorandum D0005648.A2)

- [19] James E. Grefer and Richard D. Miller. *Comparing the Relative Value of Active Duty and Civilian Compensation Packages*, Sep 2004 (CNA Research Memorandum D0010553)
- [20] Glenn H. Ackerman, Alan J. Marcus, and Christine Baxter. *Housing Benefits: Baseline Analysis*, Apr 1997 (CNA Research Memorandum 97-26)
- [21] Benjamin P. Scafidi and Glenn H. Ackerman. *Housing Navy Bachelors: Costs and Sailor Preferences*, Jan 1998 (CNA Research Memorandum 97-146)
- [22] Michael L. Hansen and Jennie W. Wenger, with Anita U. Hattiangadi. *Return on Investment of Quality-of-Life Programs*, Oct 2002 (CNA Research Memorandum D0006807.A2)
- [23] John Enns et al. "Retention and Retirement: The Case of the U.S. Military." *Policy Sciences* 17, 1984: 101-121
- [24] John Warner and Matt Goldberg. "The Influence of Non-Pecuniary Factors on Labor Supply: The Case of Navy Enlisted Personnel." *Review of Economics and Statistics* 66, 1984, 26-35
- [25] Matt Goldberg and John Warner. *Determinants of Navy Reenlistment and Extension Rates*, 1982 (CNA Research Contribution 476)
- [26] John Warner and G. Solon. "First-Term Attrition and Reenlistment in the U.S. Army." In Curtis Gilroy, D. Horne, and D. Smith (eds.), *Military Compensation and Personnel Retention*. Alexandria, VA: U.S. Army Research Institute, 1991
- [27] Walter Oi. "Commentary: No More Greetings." In Barbara Bicksler, Curtis Gilroy, and John Warner (eds.), *The All-Volunteer Force: Thirty Years of Service*. Washington, DC: Brassey's, Inc., 2004
- [28] Carol Moore, Heidi Golding, and Henry Griffis. *Manpower and Personnel IWAR 2000: Aging the Force*, Jan 2001 (CNA Annotated Briefing D0003079)

- [29] Michael Hansen and Jennie Wenger, with Albert Monroe and Henry Griffis. *Is Enlisted Retention Too High?* Oct 2003 (CNA Research Memorandum D0008594)
- [30] John Warner and Saul Pleeter. "The Personal Discount Rate: Evidence from Military Downsizing Programs." *The American Economic Review* 91(1), 2001, 33-53
- [31] Shane Frederick, George Loewenstein, & Ted O'Donoghue. "Time Discounting and Time Preference: A Critical Review." *Journal of Economic Literature* 40, Jun 2002, 351-401
- [32] Michael Murray and Laurie McDonald. *Recent Recruiting Trends and Their Implications for Models of Enlistment Supply*, 1999 (RAND Report MR-847-OSD/A)
- [33] Michael Polich, James Dertouzos, and S. James Press. *The Enlistment Bonus Experiment*, 1986 (RAND Report R-3353-FMP)
- [34] Gerald Cox. *The Time Is Now: Proposals for Two Enlistment Incentive Experiments*, Apr 2003 (CNA Research Memorandum D0007707)
- [35] Michael Hansen, with J. Katrine Wills and David Reese. *Level-Loading of Enlisted Accessions*, Sep 2004 (CNA Research Memorandum D0010352)
- [36] Martha E. Koopman and Anita U. Hattiangadi. *Do the Services Need a Deployment Pay?* Sep 2001 (CNA Research Memorandum D0004458.A1)
- [37] Heidi L. W. Golding and Susan C. McArver. *Navy Sea Pay: History and Recent Initiatives*, Dec 2001 (CNA Research Memorandum D0003611.A2)
- [38] Timothy W. Cooke. *Sea Pay, Sea Duty, and Retention: A Survey*, Jun 1985 (CNA Research Memorandum 85-36)
- [39] Heidi L. W. Golding and Henry S. Griffis. *Options for Sea Pay Reform*, Apr 1998 (CNA Annotated Briefing 98-43)

- [40] Heidi L. W. Golding and David Gregory. *Sea Tours and Sea Pay: Patterns in Sailors' Completion and Extension of Sea Duty*, Apr 2001 (CNA Annotated Briefing D0003662.A1)
- [41] Steve Cylke and Lee S. Mairs. *Sea Pay and Sea/Shore Rotation Policies*, Sep 1982 (Department of the Navy, Deputy Chief of Naval Operations (Manpower Personnel and Training), Economic Analysis Branch (OP-162))
- [42] Heidi L. W. Golding and Henry S. Griffis. *Analysis of Proposed Sea Tour Extension Program*, Jan 1999 (CNA Annotated Briefing 98-129)
- [43] Peggy A. Golfin, Diana S. Lien and David Gregory. *Evaluation of the Assignment Incentive Pay (AIP) System*, Jun 2004 (CNA Annotated Briefing D0010240.A2)
- [44] Heidi L. W. Golding, Eric W. Christensen, and Diana S. Lien. *Transforming the Assignment System: Will Incentives Reduce Critical Shortages?* Dec 2002 (CNA Research Memorandum D0007147.A2)
- [45] Heidi L. W. Golding and Gerald Cox. *Design and Implementation of AIP*, Jul 2003 (CNA Annotated Briefing D0007827.A2)
- [46] John T. Warner. *Thinking About Military Retirement*, 2005 (CNA Research Memorandum, forthcoming)
- [47] Michael L. Hansen and Samuel D. Kleinman. *Military Compensation: When 50-Year Olds Decide What 20-Year Olds Want*, Sep 2005 (CNA Research Memorandum D0012938.A1)
- [48] Beth J. Asch and John T. Warner. "Should the Military Retirement System Be Reformed?" In J. Eric Fredland, Curtis Gilroy, Roger D. Little, and W. S. Sellman (eds.), *Professionals on the Front Line: Two Decades of the All-Volunteer Force*. Washington, DC: Brassey's, Inc., 1996
- [49] Beth J. Asch and John T. Warner. *A Policy Analysis of Alternative Military Retirement Systems*, 1994 (RAND Report MR-465-OSD)

- [50] Anita U. Hattiangadi. *Private Sector Benefit Offerings in the Competition for High-Skill Recruits*, Dec 2001 (CNA Research Memorandum D0003563.A2)
- [51] Paul F. Hogan, Curtis J. Simon, and John T. Warner. "Sustaining the Force in an Era of Transition." In Barbara Bicksler, Curtis Gilroy, and John Warner (eds.), *The All-Volunteer Force: Thirty Years of Service*. Washington, DC: Brassey's, Inc., 2004
- [52] Michael J. Wilson et al. *Youth Attitude Tracking Study*, 1999 (DMDC 2000-019)
- [53] Beth J. Asch and James R. Hosek. "Looking to the Future: What Does Transformation Mean for Military Manpower and Personnel Policy?" In Barbara Bicksler, Curtis Gilroy, and John Warner (eds.), *The All-Volunteer Force: Thirty Years of Service*. Washington, DC: Brassey's, Inc., 2004
- [54] Bernard Rostker. "Changing the Officer Personnel System." In Cindy Williams (ed.), *Filling the Ranks: Transforming the U.S. Military Personnel System*. Cambridge: The MIT Press, 2004
- [55] Thomas A. Husted and Michael L. Hansen. *Thrift Savings Plans: Effect on Savings and Tax Revenues*, Dec 2001 (CNA Research Memorandum D0002891)
- [56] Beth J. Asch and John T. Warner. *The Thrift Savings Plan: Will Reservists Participate?* 2000 (RAND Report DB-306-OSD)
- [57] Richard D. Miller and Robert A. Levy. *Comparing TRICARE With Other Federal and Civilian Healthcare Plans*, Mar 2004 (CNA Research Memorandum D0009542)
- [58] Robert A. Levy, Richard D. Miller, and Pamela S. Brannman. *The DOD Health Care Benefit: How Does it Compare to FEHBP and Other Plans?* May 2000 (CNA Research Memorandum D0001316)
- [59] *Employer Health Benefits: 2004 Annual Survey*. 2004 (The Henry J. Kaiser Family Foundation and Health Research and Educational Trust)

- [60] U.S. General Accounting Office. *Military Personnel: Preliminary Results of DOD's 1999 Survey of Active Duty Members*, Mar 2000 (GAO-T-NSIAD-00-110)
- [61] Michael L. Hansen and Thomas A. Husted. *The Case for Voluntary Separation Pay*, May 2005 (CNA Research Memorandum D0011959)
- [62] Martha E. Koopman, Judith C. Fernandez, and Alan J. Marcus. *Resource Implications of Personnel Reductions*, Mar 2005 (CNA Research Memorandum D0011429)
- [63] Stephen L. Mehay and Paul F. Hogan. "The Effect of Separation Bonuses on Voluntary Quits: Evidence from the Military's Downsizing." *Southern Economic Journal* 65(1), Jul 1998, 127-139
- [64] Beth J. Asch. "Do Incentives Matter? The Case of Navy Recruiters." In Ronald G. Ehrenberg (ed.), *Do Compensation Policies Matter?* Ithaca, NY: ILR Press, 1990
- [65] Steven M. Kosiak. *Military Compensation: Requirements, Trends and Options*, Feb 2005 (Center for Strategic and Budgetary Assessments)
- [66] *Fundamentals of Employee Benefit Programs*. 5th ed. Washington DC: Employee Benefit Research Institute, 1997
- [67] Edward E. Lawler. *Rewarding Excellence: Pay Strategies for the New Economy*. San Francisco, Jossey-Bass, 2000

